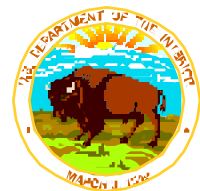


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# **CALIFORNIA BAY-DELTA ECOSYSTEM RESTORATION FUND:**

REPORT TO CONGRESS  
FOURTH QUARTER OF FISCAL YEAR 1999  
(JULY 1999 THROUGH SEPTEMBER 1999)

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**September 30, 1999**

**Bureau of Reclamation  
United States Department of the Interior**

**California Bay-Delta Ecosystem Restoration Fund**  
**Report to Congress**  
**Fourth Quarter of Fiscal Year 1999**

Requests for copies of this report and comments on its content should be directed to:

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## ***CALIFORNIA BAY-DELTA ENVIRONMENTAL ENHANCEMENT ACT***

Title XI Public Law No. 104-333, entitled California Bay-Delta Environmental Enhancement, hereinafter referred to as the Bay-Delta Act, authorizes appropriations of \$143,300,000 for each of the federal fiscal years 1998, 1999 and 2000 for: (1) the initial federal share of the cost of developing and implementing that “portion of an ecosystem protection plan for the Bay-Delta Program”<sup>1</sup> (defined as the Category III Program); and (2) the initial federal share of the cost of developing and implementing “the ecosystem restoration elements of the long-term CALFED Bay-Delta Program” (defined as Additional Ecosystem Restoration). The Bay-Delta Act took effect on November 5, 1996 and funds have been appropriated and allotted for the aforementioned purposes in each fiscal year.



## ***INTRODUCTION***

**PROGRAM.** The CALFED Bay-Delta Program is a consortium of state and federal agencies<sup>1</sup> with management and regulatory responsibilities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The Bay-Delta Program's mission is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system. The accomplishment of this mission is essential as the Bay-Delta system is a critically important part of California's natural environment and economy. It supplies drinking water for more than 22 million Californians and irrigation water for the state's \$24 billion agricultural industry. It also supports 750 plant and animal species, some found nowhere else on the planet.

The Bay-Delta Program has developed several implementation alternatives through the federal/state environmental planning process which contain common programs to address ecosystem health, levee system integrity, water use efficiency, water transfers, water quality and watershed management. The common program to address ecosystem health is described in the Ecosystem Restoration Program. The Ecosystem Restoration Program is a long-term program that will be implemented in phases over several decades.

The December 15, 1994, Bay-Delta Accord included a commitment to develop and fund ecosystem restoration activities to improve the health of the Bay-Delta ecosystem. The funding source for this effort is commonly referred to as Category III. The Restoration Coordination Program is designed as a short-term program to allow implementation of ecosystem restoration actions while the programmatic environmental documents are being revised and finalized.

In 1997, a process to guide allocation of Category III funds was developed by a CALFED committee with input from stakeholders. The administration of this process was delegated to the CALFED Restoration Coordination Program.

**PROJECT AND PROGRAM SELECTION PROCESS.** Ecosystem restoration projects and programs may be selected through identification as a Directed Action (sole source) or through a Public Solicitation Process (competitive). These two methodologies differ only in their initial means of identifying and ranking potential projects.

- ◆ **Public Solicitation Process.** The Restoration Coordination Program identifies environmental impacts and actions to address them based upon the Ecosystem Restoration Program Plan near-term priorities. The habitat restoration activities/actions are grouped into

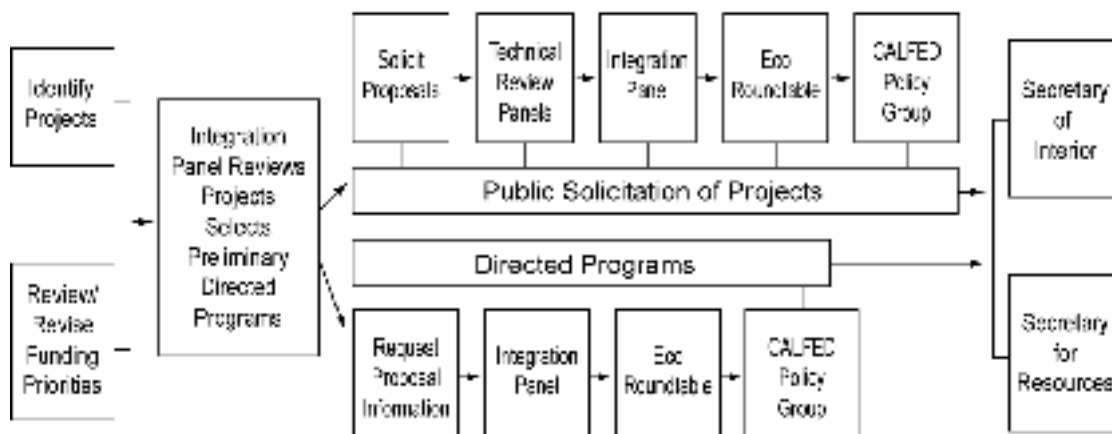
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<sup>1</sup> Federal agency representation includes: U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, U.S. Geological Survey, Bureau of Land Management, U.S. Forest Service, Natural Resource Conservation Service, National Marine Fisheries Service, Environmental Protection Agency, Western Area Power Administration and the U.S. Army Corps of Engineers. California State agency representation includes: Department of Fish and Game, Department of Water Resources, Environmental Protection Agency, State Water Resources Control Board and Department of Food and Agriculture.

Topic Areas for which selection/evaluation criteria are developed and a formal package to solicit proposals is prepared and issued. News releases and the California State Contracts Register are used to advertise the request for project proposals. Project proposals may be submitted by a variety of sources including state and federal agencies, local governments, special districts, non-profit organizations, other organizations and private individuals interested in ecosystem restoration. The Restoration Coordination Program staff, working with Technical Review Panels,<sup>2</sup> review and rank the submitted project proposals using the predetermined and advertized evaluation criteria.

- ◆ **Directed Actions.** CALFED has the discretion of directing funds towards specific actions -- Directed Programs -- that will help achieve its long-term ecosystem restoration goals. To be considered as a Directed Program, potential projects are required to meet three criteria: (1) The project is considered to be a very high priority with substantial investment already made; (2) Additional funding in the current fiscal year would result in substantial progress towards ecosystem restoration goals; and (3) The project is ready to go and the implementing entity has been identified. Projects selected as Directed Programs are identified through public and technical outreach by the CALFED Restoration Coordination Program staff and the use of the Strategic Plan for Ecosystem Restoration, the Ecosystem Restoration Program objectives and the draft Stage 1 action list. Directed Programs may be accomplished by a variety of sources including state and federal agencies, local governments, special districts, non-profit organizations, other organizations and private individuals.

## ***Ecosystem Restoration Project Selection Process***



<sup>2</sup> Technical Review Panels are composed of state, federal and non-agency representatives.

Once the potential projects are identified through either methodology, they are forwarded to the CALFED Integration Panel.<sup>3</sup> The CALFED Integration Panel evaluates the potential projects based on CALFED's comprehensive goals for ecosystem restoration. The Integration Panel takes into consideration the project's ability to meet the current fiscal year funding priorities and implementation guidelines, the system-wide ecosystem benefits of the project and compatibility with non-ecosystem CALFED objectives. The Integration Panel then forwards its recommendations for selection to the CALFED Ecosystem Roundtable who elevate their approved/recommended funding projects to the CALFED Bay-Delta Advisory Council (BDAC). BDAC transmits its advice to the CALFED agencies (Policy Group); and after their review, the Policy Group representatives prepare the final list of recommended projects and forward that list to the Secretary of the Interior. Upon project selection approval by the Secretary of the Department of the Interior, the U.S. Bureau of Reclamation issues an agreement to the project proponent or implementing federal agency.

**REPORTING REQUIREMENT.** House Report 105-190, which accompanied H.R. 2203, the Fiscal Year 1998 Energy and Water Development Appropriations Bill, requires the U.S. Department of the Interior to submit a quarterly report to the Committees on Appropriations on how the funds appropriated for the Bay-Delta Act are being utilized. The report is to include a description of each project to be undertaken, its cost and the agency to which funds were provided to carry out the project. This Fourth Quarterly Report covers activities undertaken during the period of July 1, 1999, through September 30, 1999, with the Federal Bay-Delta Account funding for fiscal year 1999.

- ◆ Chapter 1 of this report is a supplemental section addressing ecosystem restoration accomplishments achieved over the entire fiscal year 1999 time frame.
- ◆ Chapter 2 of this report highlights the significant accomplishments achieved during the fourth quarter through expenditures of Bay-Delta Act Account funding.
- ◆ Chapter 3 of this report provides a description of each of the programs and projects that have been funded or recommended for funding from the Bay-Delta Act Account, as well as a summary of accomplishments, obligations and expenditures during the fourth quarter of fiscal year 1999. All projects or programs listed here have been reviewed and recommended through the CALFED process as described above.
- ◆ Appendix A is a summary table showing the status of funds for each Bay-Delta Act funded project and program as of September 30, 1999. Appendix B is synopsis of all CALFED projects and sources of funds, including the Bay-Delta Act Account funded projects and programs.



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<sup>3</sup> Integration Panel members include technical representatives from federal and state agencies and non-agency stakeholder groups.

## *CREDITS*

Pursuant to P.L. 104-333 and annual appropriation acts providing funding for the Bay-Delta Program, the Bureau of Reclamation has been assigned the responsibility of dispersing funds to the participating federal agencies in the Bay-Delta Ecosystem Restoration Program consistent with plans approved by the Secretary of the Department of the Interior. On January 30, 1998, the Bureau of Reclamation, the Fish and Wildlife Service and the Geological Survey with the U.S. Department of the Interior, the Forest Service and National Resource Conservation Services with the U.S. Department of Agriculture, the National Marine Fisheries Service with the U.S. Department of Commerce, the U. S. Environmental Protection Agency, and the Army Corps of Engineers with the U.S. Department of the Defense signed a Memorandum of Understanding establishing: (1) the criteria for transfer of funds from the Bureau of Reclamation to the participating/project recipient federal agencies; and (2) the responsibilities of each of the participating/project recipient federal agencies in implementing the Bay-Delta Act.

The Bureau of Reclamation, working with the above listed federal agencies, prepared this report.



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## **Appendix A. Project Summary for California Bay-Delta Ecosystem**

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## *ACRONYMS*

<b>ACID</b>	Anderson-Cottonwood Irrigation District	<b>IFB</b>	Invitation for Bid
<b>AFRP</b>	Anadromous Fish Restoration Program	<b>NEPA</b>	National Environmental Policy Act
<b>BDAC</b>	Bay-Delta Advisory Group	<b>NFWF</b>	National Fish and Wildlife Foundation
<b>BLM</b>	U.S. Bureau of Land Management	<b>NHI</b>	Natural Heritage Institute
<b>CDFG</b>	California Department of Fish and Game	<b>NMFS</b>	National Marine Fisheries Service
<b>CEQA</b>	California Environmental Quality Act	<b>NRCS</b>	Natural Resource Conservation Service
<b>CFS</b>	Cubic-Feet-Per-Second	<b>PG&amp;E</b>	Pacific Gas and Electric Company
<b>COE</b>	U.S. Army Corps of Engineers	<b>PEIS/EIR</b>	Programmatic Environmental Impact Statement/Environmental Impact Report
<b>CSU</b>	California State University - <u>B</u> erkeley, <u>C</u> hico, <u>D</u> avis, <u>H</u> ay ward	<b>PSP</b>	Public Solicitation Package
<b>CVPIA</b>	Central Valley Project Improvement Act	<b>RCD</b>	Resource Conservation District
<b>CY</b>	Calendar Year	<b>RD</b>	Reclamation District
<b>DOI</b>	U.S. Department of the Interior	<b>RFP</b>	Request for Proposals
<b>DWR</b>	California Department of Water Resources	<b>TCCA</b>	Tehama-Colusa Canal Authority
<b>EA/IS</b>	Environmental Assessment/Initial Study	<b>TNC</b>	The Nature Conservancy
<b>EIS/EIR</b>	Environmental Impact Statement/Environmental Impact Report	<b>TPL</b>	The Trust for Public Land
<b>EPA</b>	U.S. Environmental Protection Agency	<b>USBR</b>	U.S. Bureau of Reclamation
<b>ERP</b>	Ecosystem Restoration Program	<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>ERPP</b>	Ecosystem Restoration Program Plan	<b>USGS</b>	U.S. Geological Survey
<b>ESA</b>	Endangered Species Act	<b>WED</b>	Water Education Foundation
<b>FERC</b>	Federal Energy Regulatory Commission		
<b>FY</b>	Fiscal Year		
<b>GIS</b>	Geographic Information System		

## ***GLOSSARY***

**Amendment.** In concert with our advisory groups, CALFED has developed a decision-making process for agreement amendments. In general, the contracting agency has decision-making authority for minor time extensions and revisions in the scope of services, as described below as Level I amendments. All other proposed amendments are forwarded to CALFED for review and input by the Ecosystem Roundtable, the CALFED Management Team, and/or the CALFED Policy Group. However, final decisions remain with DOI, the State Resources Agency and EPA over their respective funding sources.

- ◆ **Amendments - Level I.** Level I amendments are defined as: (1) cumulative time extensions up to nine months; (2) changes in scope of services which will not alter the final outcome of the project; or (3) budget increases not to exceed a total of \$25,000 for each contract/agreement. Decisions on amendments at this level would be made by contracting agency staff after consulting with CALFED staff. Federal contracting agencies may delegate decision-making to the Executive Director of the CALFED Bay-Delta Program, as appropriate.
- ◆ **Amendments - Level II.** Level II amendments are defined as: (1) cumulative time extensions over nine months; (2) cumulative budget increases up to 30% of the contract amount, but not greater than \$500,000; or (3) changes in scope of services which alter the final outcome of the project.

These amendment requests would be considered by an Ecosystem Roundtable subcommittee which will meet in a publicly noticed meeting and consider each amendment in detail. The Ecosystem Roundtable members will review and comment on the proposed amendments. A subgroup of the Management Team members will participate in reviewing the contract amendments at the same meeting with members of the Ecosystem Roundtable subcommittee. The Management Team subgroup will then make their recommendation with input from the Ecosystem Roundtable subcommittee members. The Management Team subgroup will decide whether an individual item merits full Management Team review and discussion and/or Policy Group review. If an item is identified as not meriting additional discussion, then the Management Team subgroup's recommendation will be transmitted directly to the appropriate contracting agency. DOI, the State Resources Agency and the EPA have the final approval over their respective funding sources.

- ◆ **Amendments - Level III.** Level III amendments are defined as cumulative budget increases of 30% or more of the contract amount or over \$500,000. Level III amendments will be reviewed through the same process as Level II amendments, but will be presented to the Policy Team which will transmit their recommendation to the respective funding source.

**Bay-Delta Advisory Counsel.** The Bay-Delta Advisory Counsel (BDAC) consists of over 30 representative California stakeholder groups. BDAC is chartered under the Federal Advisory Committee Act and provides input to the overall Bay-Delta Program.

**CALFED Policy Group.** The Policy Group is made up of both state and federal agency directors or their designees who are signatories to the CALFED Framework agreement.

**Directed Action.** A Directed Action is a sole source method utilized to target and select high priority ecosystem restoration projects and programs.

**Ecosystem Roundtable.** The Ecosystem Roundtable is a subcommittee of BDAC specifically created to provide input from a broad cross section of stakeholder interests to the Restoration Coordination Program.

**Ecosystem Roundtable Amendment Subcommittee.** A subcommittee of the Ecosystem Roundtable meets as needed to review proposed substantive amendments to projects and programs funded by the Bay-Delta Act and other CALFED sources of funds. The Amendments Subcommittees recommendations may be final or require further adoption as delineated above under Amendments.

**Fiscal Year.** The federal fiscal year starts October 1st and ends September 30th of the following calendar year.

**Public Solicitation Package.** A Public Solicitation Package is a document issued to competitively solicit ecosystem restoration projects from public and private sources - project proponents. To date CALFED has advertised an annual PSP in years 1997 through 1999.

**White Papers.** White papers explicitly define what is known and not known about specific issues, and provide the basis for implementing actions, including the design of monitoring and research projects.



## CHAPTER 1. FISCAL YEAR 1999 ACCOMPLISHMENTS

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**The CALFED Bay-Delta Program's Ecosystem Restoration Program represents one of the most ambitious and comprehensive ecosystem restoration projects ever undertaken in the United States.** Through an integrated ecosystem management approach, CALFED is attempting to recover and protect multiple species by restoring the natural physical and ecological processes that help create and maintain diverse and healthy habitats. Over the past 2 years, CALFED has funded all or portions of some 240 ecosystem restoration projects and programs totaling approximately \$254 million through state (\$60 million), federal (\$162 million) and stakeholder (\$32 million) funds. Federal contributions through the Bay-Delta Act which is in its second year of authorization and appropriation, totals \$160 million. These funds have contributed to the undertaking of an ecosystem restoration program of unprecedented breadth and scope of projects including, fish screens, fish ladders, land acquisition, habitat restoration and focused research and monitoring projects designed to provide information that will improve future restoration efforts.

**SELECT PROJECT ACCOMPLISHMENTS.** The projects which are profiled here are representative of the broad concepts and improvements the CALFED Ecosystem Restoration Program is striving to achieve.

- ◆ **The Battle Creek Salmon and Steelhead Restoration Project** is a historic project which, through a unique partnership of the public and private sectors, opens up an extraordinary opportunity to reestablish up to 42 miles of prime salmon and steelhead habitat on the mainstem Battle Creek and an additional 6 miles of its tributaries. Established through a memorandum of understanding between the USBR, PG&E, NMFS, USFWS and CDFG, a framework has been established that provides for the development of a plan to modify PG&E's Battle Creek Hydroelectric Project. The project entails (1) decommissioning and removal of five diversion dams, (2) construction of ladders and screens at three diversion dams, (3) increasing flow releases from remaining diversion dams, and (4) constructing powerhouse tailrace connectors to eliminate redundant screening and the mixing of north and south fork waters.

With this historic agreement, the single largest most important anadromous fish spawning stream in the Sacramento Valley can be restored while maintaining the economic viability of the pollution free renewable hydroelectric energy source. The project is also breaking new ground with FERC in establishing for the first time, an alternative hybrid license amendment process. This process is being developed to streamline the FERC license amendment process in the spirit of the

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*"Battle Creek is widely regarded as the best opportunity to restore dwindling salmon and steelhead stocks in the entire Central Valley."*

*- Friends of the River*

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collaborative nature of this project. FERC is cooperating at all levels from engineering and design aspects to environmental compliance activities.

The Battle Creek watershed is especially important in statewide efforts to restore salmon and steelhead habitat because of its very drought resistant characteristics. The watershed is fed by runoff from Mount Lassen; and a significant contribution to the creek flow comes from naturally fed underground spring flow. The spring fed water that enters the creek is especially cold and because its source is from underground, the flow in the creek tends to continue when other Sacramento River tributaries are running dry from lack of surface runoff. Due to its ability to maintain greater flow levels during drought conditions, the watershed becomes a refuge for anadromous fish species in dry, hot years. Overall, the project offers the most substantial opportunity to restore anadromous fishery habitat within the State of California while still meeting the needs of the people of California for renewable energy resources.

- ◆ **Grayson River Ranch Perpetual Conservation Easement and Restoration Project.** The East Stanislaus Resource Conservation District, in conjunction with the Friends of the Tuolumne, secured a perpetual conservation easement on the Grayson River Ranch. The 140 acres of property is adjacent to 1.2 miles of the south bank of the Tuolumne River, a little over five miles upstream from the confluence with the San Joaquin river. Acquisition of the easement will now allow for funded restoration and monitoring efforts to occur on the Tuolumne. The project includes property that has been intensely cultivated until the January 1997 floods caused considerable property damage and flooded the entire project area. By obtaining the conservation easement, the property can now be restored to a full, self-sustaining riparian floodplain and provide benefits for anadromous fisheries as well as migratory bird species.
- ◆ **Fern-Headreach Tidal Perennial Aquatic and Shaded River Aquatic Conservation Project.** The Thomas Lucky Company acquired and in turn conveyed a permanent conservation easement to CDFG on the Fern Headreach Island Complex. This island complex consists of 168 acres along the main channel of San Joaquin River, in the heart of the Sacramento-San Joaquin Delta. Levees surrounding the island complex are comprised largely of shaded riverine aquatic habitat. During the winter of 1996-97, two minor breaches occurred on the west side of the island complex. Currently, several shallow breaches, created by flooding, allow the 150 acre interior of the island to be subjected to tidal influence. Securing this easement commits the entire 168 acre complex, including 28 acres of shaded riverine aquatic habitat and 140 acres of shallow water tidal perennial aquatic habitat (freshwater) to permanent conservation status.
- ◆ **Butte Creek Acquisition Project.** CSU leveraged Bay-Delta Act funding to complete the acquisition of 146 acres with 1.5 mile of creek frontage on Butte Creek, a Sacramento River tributary critical to endangered spring-run chinook salmon. Protection of fishery habitat on Butte Creek is a high-priority for agencies and conservancies working to restore anadromous species. Acquisition of this property will allow for development of a natural floodplain which

would have significant benefits for riparian habitats as well as listed spring-run and steelhead.

- ◆ **The Prospect Island Habitat Protection Project** has been completed with success by repairing the breached levee and returning the island to its pre-flood condition. Prospect Island's cross levee, dividing the Port of Sacramento property from USBR's property, breached shortly after the flooding in January 1997. The Prospect Island cross levee was repaired in the dry and was reinforced with riprap and gravel on the surface of where the breach occurred. As the levee breach was filled and the de-watering begun, a fish recovery program insured the safe capture and removal of stranded aquatic life and also sampled the fish species found in the vicinity. The end results is a protected interior of Prospect Island with reinforced levees that will be able to withstand flooding and erosion, and ultimately lead to protecting the wildlife that inhabits the area.
- ◆ **The Woodbridge Fish Screen Passage Project** completed an Alternatives Assessment Report in January of 1999, that narrowed the project alternatives to five. The overall project is comprised of: (1) improving fish passage at Woodbridge Dam, (2) upgrading the fish screen at the district diversion, (3) placing screens on unscreened or under-screened riparian diversions on the Mokelumne River between Camanche Dam and the Cosumnes River on a voluntary basis, and (4) restoring riparian vegetation along the Mokelumne River. An administrative draft EIR/EIS was issued in June 1999. The public draft EIR/EIS was issued in September and the comment period will run through January of 2000. A record of decision will be issued by June 2000.
- ◆ **The Water Challenge 2010 Exhibit** is an exciting and fully interactive, traveling exhibit under final development by the COE on the complexity of allocating scarce water resources. A large overhead water tank will represent the total available water with the visitor making the allocation choices-sending water down to three separate tanks: farming, environment, cities. A feedback system will inform the visitor of the impacts of those choices and provide additional information on CALFED, how water is utilized by each user group and role of water managing groups.
- ◆ **The Anderson Cottonwood Irrigation District Fish Passage Project** consists of constructing a new 450-cfs fish screen, a new vertical slot fish ladder, and a new pool-and-chute fish ladder at the district's main diversion dam on the Sacramento River near Redding, California. The project will directly benefit all anadromous Sacramento River fish species within a critically important spawning reach for federal and state-listed endangered winter-run chinook salmon and all other upper Sacramento River salmon runs currently proposed for listing. The project is divided into three phases, with each phase accomplishing the following in fiscal year 1999:

Phase I, was complete on March 31, 1999. This phase consisted of a feasibility study that included the development and evaluation of project alternatives and conceptual design of the preferred alternative. Other elements of Phase I that were completed included conceptual-

level construction cost estimates and preliminary investigations of geotechnical, hydrological, hydraulic, permitting requirement, and right-of-way/land ownership issues.

Phase II resulted in the final design of both the fish ladder and fish screen facilities, preparation of contract documents for construction of the facilities, and completion of environmental documents and permits. Final design and contract documents are expected to be out for bids by October 1999.

Phase III, was awarded to ACID on August 6, 1999 and will result in the construction of the facilities beginning early in November 1999. The facilities are slated for full operation by 2001.

◆ **San Joaquin National Wildlife Refuge.**

USFWS acquired 2,030 acres of land thereby increasing the overall acreage in the San Joaquin National Wildlife Refuge and expending a portion of the \$10.5 million provided through the Bay-Delta Act. Expansion of the refuge will reduce flooding,

protect and restore valuable wildlife habitat and provide other local benefits. Additionally, due to the devastating floods in the area during 1997, CALFED participating agencies are developing nonstructural flood control strategies that are compatible with the protection and restoration of riparian and wetland habitat of the wildlife refuge.

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*Expansion of the San Joaquin National Wildlife Refuge is a prime example of the partnerships and multiple benefits - widening of the floodplain, increased residence time and transient storage of flood waters, groundwater recharge, and the protection/restoration of riparian and wetland habitat - CALFED seeks to achieve.*

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- ◆ The EPA released its final report on the **Regional Wetlands Goals Project**. The report "Bay lands Ecosystem Habitat Goals: A Report of Habitat Recommendations" received favorable media coverage and has been widely distributed.

- ◆ **Research Programs.** USGS continues to conduct essential research in the San Francisco Bay-Delta to assist in CALFED's long-term ecosystem restoration and water quality efforts. Funded research includes the monitoring of sediment transport in the Delta, the evaluation of selenium sources and the assessment food production in Delta habitats, and the analysis of the quality and amounts of organic carbon released by wetlands into the Delta channels and the impact to drinking water quality.

**PROJECT AND PROGRAM SELECTION.** During the past fiscal year, the participating CALFED agencies and advisory stakeholder groups have made appreciable strides in implementing and improving upon a project selection process (see Introduction for detailed process description) that is equitable, open to the public, scientifically driven and assures the funding of high priority ecosystem projects.

- ◆ In February 1999, thirteen directed programs were recommended and approved for federal funding at a total cost of \$53 million. These directed programs included the Battle Creek project which will restore 42 miles of historical chinook salmon habitat, construction of the Anderson Cottonwood Irrigation District fish screen on the upper Sacramento River and a major study of the effects of mercury (see page 46) on the ecosystem and how ecosystem restoration can affect mercury levels in the system.

<b>FY 1999 CONTRACTED PROJECTS</b> (\$ IN 1,000)		
TOPIC AREA	No.	\$
Fish Screen Improvement	1	\$0.9
Fish Passage Improvements	10	\$11.9
Habitat Restoration in Floodplains and Marshes	17	\$19.4
River Channel Changes	3	\$5.0
Improved Instream Flows	2	\$5.5
Water Quality and Temperature Improvement	1	\$3.8
Introduced and Undesirable Species Control	0	\$0.0
Improved Fish Management and Hatchery Operations	0	\$0.0
Watershed Management	13	\$3.4
Monitoring, Permit Coordination and Other Special Support	10	\$0.4
<b>TOTAL</b>	<b>57</b>	<b>\$50.3</b>

- ◆ A public solicitation for ecosystem restoration projects was held in 1999 as well in response to which 226 proposals were submitted totaling more than \$264 million. 33 projects were selected for funding of which 31 were approved for federal funding by the Secretary of the Interior. Also selected for implementation and funding were seven projects to support the USFWS's Nonnative Invasive Species Program (see page 51) and one project to support the COE's Flood Control Bypass Program (see page 33).

\$14.5 million was also set-aside for environmental water acquisition (see page 44) in 1999. Two purchases were approved for funding at a total cost of \$5.5 million. 50,000 acre feet of water was acquired on the Stanislaus River to benefit out-migrating chinook salmon and 43,000 acre feet of water was released on the San Joaquin River to augment flows and promote dispersal and germination of seed from native riparian vegetation along the San Joaquin River corridor.

**CONTRACT EFFORTS.** During fiscal year 1999, 57 ecosystem restoration projects were contracted for a total of \$50.3 million. Of this total, 43 contracts supported the following restoration programs: 15 under the USFWS's Floodplain Restoration/Habitat Restoration on Existing Conservation Land Program; 12 under the EPA's Watershed Restoration Planning and Implementation Program; 10 under the USBR's Bay-Delta Education Program; and 6 under the USBR's Fish Passage Program.

Details on these contracted projects and federal agency programs are located in Chapter 3 of this report.

The majority of projects contracted to date have an average performance period of three years and are funded in arrears to assure timely and successful completion. Through the efforts of the participating federal agencies and project proponents, a total of \$38 million was obligated and \$30 million was expended in fiscal year 1999 from the Bay-Delta Act towards ecosystem restoration.

**ECOSYSTEM RESTORATION PROGRAM TRANSITION.** In 1999, the CALFED Bay-Delta Program began its transition from early ecosystem restoration, as authorized by the Bay-Delta Accord, to long-term implementation of the ERP. It is anticipated that the ERP will be completed, as part of the CALFED PEIS/EIR, in June 2000. Accordingly, plans are underway to complete the transition from early ecosystem restoration to full implementation of the long-term ERP.



**STATUS OF CALIFORNIA BAY-DELTA ECOSYSTEM RESTORATION FUND.** Through September 30, 1999, Congress has authorized \$160 million in Bay-Delta Act funds of which a total of \$111 million was obligated and \$35 million was expended towards ecosystem restoration projects and activities.

A summary of the funds allocated, obligated and expended to date by Ecosystem Restoration Program Topic Areas follows. Details on specific projects and programs progress can be found in Chapter 3 of this report.

SEPTEMBER 30, 1999 (IN \$1,000)			
TOPIC AREA	ALLOCATED	OBLIGATED	EXPENDED
Fish Screen Improvement	\$2,539	\$2,539	\$593
Fish Passage Improvements	\$43,042	\$13,717	\$1,759
Habitat Restoration in Floodplains and Marshes	\$47,160	\$41,652	\$13,742
River Channel Changes	\$15,233	\$14,877	\$8,809
Improved Instream Flows	\$14,500	\$13,238	\$3,007
Water Quality and Temperature Improvement	\$11,209	\$8,844	\$2,655
Introduced and Undesirable Species Control	\$1,402	\$1,250	\$33
Improved Fish Management and Hatchery Operations	\$674	\$625	\$128
Watershed Management	\$4,848	\$4,243	\$445
Monitoring, Permit Coordination and Other Special Support	\$9,924	\$8,331	\$3,198
Miscellaneous Expenses/Administration	\$9,469	\$1,644	\$491
<b>TOTAL</b>	<b>\$160,000</b>	<b>\$110,960</b>	<b>\$34,860</b>



## CHAPTER 2. FOURTH QUARTER HIGHLIGHTS

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**FOURTH QUARTER AGREEMENT OBLIGATIONS AND EXPENDITURES.** A total of \$38 million was obligated and \$22 million was expended during the fourth quarter of FY 1999 towards ecosystem restoration projects and activities. The participating federal agencies negotiated and awarded 14 new projects, 3 under USBR's Fish Passage Program, 4 under USFWS's Floodplain Restoration/Habitat Restoration on Existing Conservation Land Program, 2 under EPA's Watershed Restoration Planning and Implementation Program, 2 under USBR's Environmental Water Acquisition Program and 3 projects in support of the Fish Passage Improvement and Water Quality and Temperature Improvement Topic Areas. Project descriptions are in Chapter 3 of this report.

### SELECT PROJECT ACCOMPLISHMENTS:

- ◆ **McCormack-Williamson Tract Acquisition.** On September 30, 1999, TNC closed escrow on the 1,600 McCormack Williamson Tract (a.k.a. Bean Ranch) in the North Delta.

The acquisition of Bean Ranch expands an existing project, the multi-partner Cosumnes River Preserve (Preserve). Current holdings within the Preserve total approximately 37,000 acres and represent a cumulative investment in land, management, planning and scientific investigation of approximately \$65 million to date. Of this funding, approximately one fourth has been raised from private sources. The balance represents a mix of federal, state, local and mitigation funding. TNC, BLM and other partners provide the approximately \$800 thousand needed annually for management of the Preserve. Ongoing private fundraising by TNC continues to generate substantial revenues for management and special projects, as well as for an endowment to support long-term management. This endowment currently stands at \$1 million.

Acquiring the tract is key to completing protection of a habitat corridor from the Valensin Ranch downstream to the Mokelumne-San Joaquin river confluence. The mix of fee and easement acquisitions on the Preserve assures both maximum cooperation with the local community and the lowest practicable cost of implementing the program. The seller and TNC on May 11, 1999, reached agreement on a sale at \$5.2 million.

TNC will also provide wildlife-friendly levee maintenance, staffing to maintain environmentally compatible farming operations and cooperate in preliminary planning for long term restoration of the tract. TNC will own, hold and manage the tract for a maximum of 3 years pending development of a long term management and restoration plan and identification of an entity/agency to which to permanently transfer title and management of the tract.

- ◆ **Liberty Island Acquisition.** TPL closed escrow on and acquired Liberty Island, approximately 4,760 acres, in September 1999. The island is strategically located in the

north Delta at the southern end of the Yolo Bypass. The acquisition and eventual restoration will provide potential wetland, shaded riverine aquatic and instream habitat for winter-run chinook salmon, Delta smelt, splittail and other species.

**FY 1999 PROPOSAL SOLICITATION AND PROJECT SELECTION.** CALFED program staff (along with Technical Panels, the Ecosystem Roundtable, BDAC and the CALFED Policy Group) evaluated proposals submitted by private and public entities interested in ecosystem restoration. The solicitation for ecosystem restoration projects and programs was completed on April 16, 1999. The available funding for ecosystem restoration projects in 1999 is \$18.7 million. Proposals numbering 226 and valued at \$264 million were submitted. The CALFED Integration Panel recommended funding 34 proposals. The Ecosystem Roundtable, BDAC and the CALFED Policy Group recommended funding 33 of the 34 proposals. Of the 33 proposals, 21 have been identified for funding with 1999 Bay-Delta Act funds. The Secretary of the Interior has approved funding these programs and projects and agreement negotiations are under way with the approved, proposed project recipients.

**FY 2000 PRIORITY SETTING.** Planning for FY 2000 funds has been completed. A Public Workshop was held on August 31st to discuss FY 2000 priorities. On September 27th and 28th, an Interim Science Panel convened and recommended funding 20 additional projects from the April 16, 1999 PSP. Those recommendations are now being presented to the Ecosystem Roundtable, BDAC and CALFED Policy Group.

**DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT STATUS.** On June 25, 1999, CALFED program staff issued the draft "Programmatic Environmental Impact Statement/Environmental Impact Report," (PEIS/EIR) starting a 90-day public comment period which closed September 23, 1999. During the comment period, CALFED held 15 public hearings at various locations all over the State of California to gain input on the draft PEIS/EIR. Incorporation of the comments into the PEIS/EIR will culminate with the Federal Record of Decision and the State Certification of the Final PEIS/EIR, expected to be completed in June 2000.





## CHAPTER 3. STATUS OF PROJECT AND PROGRAMS FUNDED BY THE BAY-DELTA ACT ECOSYSTEM RESTORATION FUND

As stated in the Introduction to this report, this chapter provides a description of each of the programs and projects that has been funded or recommended for funding from the Bay-Delta Act Ecosystem Restoration Fund, as well as a summary of accomplishments and obligations during the fourth quarter of FY 1999. This chapter is organized by eleven sections or "Topic Areas" with projects and programs relating to that ecosystem restoration topic.

Projects are funded from the Bay-Delta Act Account directly by agreements awarded by USBR. Additionally, participating federal agencies - delegated responsibility for managing an ecosystem restoration program within their area of expertise - award Bay-Delta Act Account funded agreements in support of assigned programs. There are eight such programs which include: (1) Fish Passage Program - USBR, (2) Floodplain Restoration/Habitat Restoration on Existing Conservation Lands Program - USFWS, (3) Habitat Restoration/Flood Control Bypasses Program- COE, (4) Environmental Water Acquisition Program - USBR, (5) Exotic Species Control Program - USFWS, (6) Watershed Restoration Planning and Implementation Program - EPA, (7) Bay-Delta Education Program - USBR and (8) Special Support Programs - USBR.

### SECTION A - FISH SCREEN IMPROVEMENTS

CALFED Recommended Level of Funding:	\$	2,539,000
Funds Obligated Through September 30, 1999:	\$	2,539,000
Funds Expended Through September 30, 1999:	\$	592,390

#### 1. **Project Title:** Boeger Family Farms Fish Screen, Phase I

CALFED Recommended level of funding:	\$15,000
Funds Obligated Through September 30, 1999	\$15,000
Funds Expended Through September 30, 1999:	\$13,811

**Funding provided to:** USBR agreement signed with Boeger Family Farms on August 12, 1998

**Project Description:** Boeger Family Farms proposes to install fish screens on its existing slant pump in the Sacramento River near Colusa. This Phase I work involves only the technical and biological studies of the project to determine whether construction is feasible. The fish screen would reduce entrainment of priority species at the Boeger Family Farms pump. Priority species include steelhead and various chinook salmon runs (winter-run, spring-run and late-fall run).

**Completed:** April 30, 1999 -- The Initial Study and Feasibility Study which identifies two design alternatives is final; and USBR is awaiting final billing from proponent. See Project No. 1.E. under Section B below for information on permitting and construction phase of project work.

2. **Project Title:** Richter Brothers Anadromous Fish Screen, Phase I

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CALFED Recommended Level of Funding:	\$49,000
Funds Obligated Through September 30, 1999	\$49,000
Funds Expended Through September 30, 1999:	\$0

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**Funding provided to:** USBR agreement signed with Richter Brothers on June 12, 1998

**Project Description:** The Richter Brothers operate an unscreened 25-cubic-foot per second diversion on the Sacramento River near Knights Landing. This project includes evaluating screening alternatives, completing environmental documentation, obtaining permits and preparing design plans for installing a fish screen on this diversion. USBR will coordinate with the Richter Brothers to accomplish this project.

**Completion Date:** August 15, 1999

**Project Completed:** The feasibility investigation is complete and a preferred project has been selected for screening the diversion. The feasibility evaluation, EA/IS has been compiled and will be submitted to USBR this quarter. Information in this document will be used to prepare a proposal for Phase II construction. A no cost time extension is under consideration.

3. **Project Title:** Small Diversion Fish Screens Program

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CALFED Recommended Level of Funding:	\$900,000
Funds Obligated Through September 30, 1999	\$900,000
Funds Expended Through September 30, 1999:	\$24,070

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**Funding provided through:** USBR agreement signed with NRCS on February 24, 1999

**Project Description:** NRCS oversees an existing program to promote the installation and use of fish screens on small irrigation diversions. This cooperative effort involves local landowners, NRCS, Farm Services Agency, the Family Water Alliance, CDFG, NMFS and NFWF. The purpose of this program is to allow expansion of this NRCS program with additional funding from the Bay-Delta Act appropriation. Expansion of the program will allow NRCS to provide greater Central Valley area coverage; increase the number of landowners receiving technical and financial assistance for fish screen installation; provide additional assistance to landowners for meeting NEPA/CEQA requirements; increase information, education and outreach activities in support of the program; and coordinate project activities with the CALFED program.

**Completion Date:** September 30, 2001

**Fourth Quarter Accomplishments:** NRCS has initiated information and education activities and the landowner assistance function of the program through the Family Water Alliance (\$90,000). Emphasis has been on direct assistance to landowners planning fall 1999 fish screen installations. Thus far, three sites have been identified and selected for fall 1999 small diversion fish screens. NEPA documentation for the fall 1999 actions is 85 percent complete and Section 7 ESA consultations with NMFS have been initiated. Currently, NRCS is providing engineering assistance (\$95,000) to complete designs and initiate contracts (\$715,000) for the fall 1999 projects.

**4. Project Title:** Woodbridge Fish Screen and Passage

CALFED Recommended Level of Funding:	\$1,575,000
Funds Obligated Through September 30, 1999	\$1,575,000
Funds Expended Through September 30, 1999:	\$554,509

**Funding provided to:** USBR agreement signed with the Woodbridge Irrigation District on June 30, 1998

**Project Description:** The primary goals for this project on the Lower Mokelumne River are to implement key elements of existing resource management plans of CALFED, USFWS and CDFG to substantially increase fall-run chinook salmon and steelhead populations, enhance critical and limiting aquatic habitats and restore riparian ecosystem integrity and diversity. Three specific tasks will be funded through the Bay-Delta Act appropriation: (1) Task 1 involves development of NEPA/CEQA documentation and related permitting for fish passage improvements (alternatives include building a new fish ladder, modifying the dam and replacing the dam) at Woodbridge Dam; (2) Task 2 involves the development of complete and final designs for the fish passage improvements at Woodbridge Dam; and (3) Task 3 involves finalization of NEPA/CEQA documentation and permitting for the Woodbridge Irrigation and the North San Joaquin Water Conservation Districts' fish screen improvements. USBR will work in coordination with the Woodbridge Irrigation District and the City of Lodi to accomplish this project. Actual construction of the fish passage and fish screen improvements are not included as part of this project but could be included as a future project in a CALFED PSP.

**Completion Date:** December 31, 1999

**Fourth Quarter Accomplishments:** The administrative draft EIS/EIR has been completed, comments have been received and a public draft EIS/EIR is scheduled to be released in October 1999. Five of the 14 alternatives considered in the Preliminary Alternatives Assessment Report were analyzed in detail. Completed engineering work includes soil and foundation drilling surveys, aerial mapping and fishway design reviews. A fish ladder design group consisting of NMFS, CDFG, USBR, USFWS and the East Bay Municipal Utility District has been established to consider design alternatives.



## SECTION B - FISH PASSAGE IMPROVEMENTS

CALFED Recommended Level of Funding:	\$	43,042,099
Funds Obligated Through September 30, 1999:	\$	13,716,660
Funds Expended Through September 30, 1999:	\$	1,759,008

### 1. **Program Title:** Fish Passage Program

CALFED Recommended Level of Funding:	\$8,943,607
Funds Obligated Through September 30, 1999	\$3,008,355
Funds Expended Through September 30, 1999:	\$966,698

#### **Funding provided to:** USBR

**Program Description:** This program will identify and implement additional fish passage projects at locations such as McCormick-Saeltzer Dam on Clear Creek and Coleman National Fish Hatchery on Battle Creek. USBR will coordinate with CALFED staff, USFWS, NMFS and other interested agencies or private entities to meet the goals of this program.

#### A. **Title:** 1998 PSP Fish Passage Projects under Negotiation

CALFED Recommended Level of Funding:	\$6,855,607
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**Description:** In May 1998, CALFED issued a PSP requesting proposals to assess fish passage problems and associated concerns regarding migration delays, stranding and straying and to identify solutions. The assessment of problems and the identification of solutions could be accomplished through cooperative efforts to conduct the assessments necessary to identify small diversion dams that are appropriate for removal or consolidation and small diversion dams that need to be replaced or modified with structures such as fish ladders, ramped approaches and weirs. Cooperative efforts could include developing expert work groups to work with local programs; and proposals could address the entire Bay-Delta watershed or concentrate on smaller areas within the geographic area of consideration. Nine projects were selected and approved for a total of \$4,112,305.

**Fourth Quarter Accomplishments:** During the fourth quarter three agreements were awarded for \$1,619,500 and three agreements remain to be awarded as detailed in the following table:

1998 PSP Projects	Expected Award Date	Recommended Funding Level	Funding Recipient
City of Sacramento Fish Screen Replacement Project, Phase II	Pending	\$654,500	City of Sacramento
Hastings Tract Fish Screen, Phase II: Construction	Pending	\$271,250	Hastings Island Land Company
Steelhead and Chinook Salmon Fish Passage Barrier Remediation on the Guadalupe River	Pending	\$178,200	NHI
Total Under Solicitation		\$1,103,950	

The remaining \$1,799,695 in funding for Fish Passage Program was included in the February 1999 CALFED PSP detailed in Project No. 2 below.

**B. Project Title:** ACID Fish Passage and Fish Screen Improvement, Phase II

CALFED Recommended Level of Funding:	\$860,000
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**Funding provided to:** USBR agreement signed with ACID on April 12, 1999

**Project Description:** See project description under Project No. 3 below in this Section.

**Project Completed:** August 31, 1999 -- ACID held fish passage team meetings and worked on the permit application process, environmental documentation and design work in support of the second and third phases of this project. Proposed contracts have been developed and are currently under contracting review.

**C. Project Title:** American Basin Fish Screen and Habitat Improvement Project, Phase II & III

CALFED Recommended Level of Funding:	\$200,000
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**Funding Provided to:** USBR agreement signed with Natomas Mutual Water Company on September 17, 1999

**Project Description:** The proposed American Basin Fish Screen and Habitat Improvement Project (Project) consists of consolidating 5 existing diversions into two diversions from the Sacramento River. These consolidated diversions would be constructed with state-of-the-art fish screens that would meet the fish screening criteria of NMFS, CDFG and USFWS for juvenile anadromous fish and other species.

This agreement funds Phases I and II of the Project. Phase I is a feasibility study that will identify and evaluate alternatives for the Project and includes obtaining site specific data, water demands investigations, biological resource studies, alternative location evaluations,

coordination and meetings and legal and administrative tasks. Phase II consists of completing preliminary design and draft environmental documentation which will begin after a preferred alternative has been selected in Phase I. Phases III, IV, and V will be initiated after the completion of Phases I and II, and will be cost shared under a subsequent agreement. Phase III entails the preparation of the final design, post construction evaluation and operation & maintenance plans, public draft and final environmental documents, ESA consultation and permit and right-of-way procurement. Phase IV consists of the bidding process, Project construction and implementation of the environmental mitigation. Phase V includes fish screen evaluations to ensure that the Project meets CDFG and NMFS fish screen criteria.

**Completion Date:** December 30, 2000

**Fourth Quarter Accomplishments:** Negotiations on the scope and performance schedule completed and agreement awarded.

**D. Project Title:** Anadromous Fish Passage at Clough Dam on Mill Creek

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CALFED Recommended Level of Funding:	\$1,280,000
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**Funding Provided to:** USBR agreement signed with DWR on July 1, 1999

**Project Description:** The goal of this project is to construct a new single fish screen in Los Molinas Mutual Water Company (LMMWC) diversion ditch, construct a water diversion siphon from the LMMWC right bank ditch to the existing left bank Clough diversion ditch and remove the remaining portion of the existing Clough diversion dam and fish ladder. This agreement will fund site characterization, engineering design, construction and inspection to modify the Clough Dam diversion. The objective of this project is to provide unimpaired upstream adult passage to prime salmonid habitat and minimize delay to downstream juvenile fish passage on the way to the Sacramento River.

**Completion Date:** December 1, 2000

**Fourth Quarter Accomplishments:** DWR, a cooperating entity, is currently in negotiations with the landowner to gain site access and resolve the landowner's concerns with the proposed project. Discussions have stalled in mid-September which may necessitate the cancellation of this project.

**E. Project Title:** Boeger Family Farm Fish Screen, Phase II: Construction

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CALFED Recommended Level of Funding:	\$139,500
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**Funding Provided to:** USBR agreement signed with Boeger Family Farms on August 10, 1999

**Project Description:** Boeger Family Farms proposes to install fish screens on its existing slant pump in the Sacramento River near Colusa. The Phase II work involves selecting the final alternative, permitting, construction and post-project monitoring. The fish screen would reduce entrainment of priority species at the Boeger Family Farms pump. Priority species include steelhead and various chinook salmon runs (winter-run, spring-run and late-fall run).

**Completion Date:** April 1, 2003

**Fourth Quarter Accomplishments:** Currently consulting with permitting agencies to determine final selected alternative prior to initiating construction.

**F. Project Title:** Fish Passage Improvement Project at the Red Bluff Diversion Dam

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CALFED Recommended Level of Funding:	\$340,600
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**Funding Provided to:** USBR agreement signed with TCCA on March 8, 1999

**Project Description:** TCCA diverts up to 2,600 cfs of its allocated Sacramento River water into the canals at the Red Bluff Diversion Dam. However, operations at the diversion works are permitted only from May 15 to September 15 of each year. Water supplies available to TCCA during other times of the year are not always reliable, particularly during dry years and the Red Bluff Diversion Dam blocks anadromous fish migration when the gates are down. This project will compile and evaluate data to document the current river and diversion dam conditions, identify potential environmental issues, develop preliminary concepts for fish screens, intake facilities and delivery conveyance systems, and define the least cost, technically superior intake and delivery system that best satisfies environmental and other needs. Included in this project will be the development of construction and annual operation and maintenance estimates. NEPA/CEQA documentation and permitting, along with actual construction are not included at this time.

**Completion Date:** December 31, 1999

**Fourth Quarter Accomplishments:** A reconnaissance level field study has been completed, and the technical memorandum finalized. Initiated hydrologic and hydraulic studies to determine the fish screen and intake facility sizes, location and proposed configuration. Site specific field data will be initiated next quarter.

**G. Project Title:** Modifications of Existing Fish Ladders at Granlee Diversion Dam and the Retrofit of Three Summer Dams with Low-Flow Passage Structures (a.k.a.: Cosumnes River Salmonid Barrier Program)

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CALFED Recommended Level of Funding:	\$188,255
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**Funding Provided to:** USBR agreement signed with Fisheries Foundation of California on March 11, 1999

**Project Description:** The Cosumnes River watershed has great potential for restoration as spawning and juvenile rearing habitat for both chinook salmon and steelhead. The project represents an efficient and important step towards restoring the Cosumnes River's salmon population by addressing four fish passage barriers in the lower 34 miles of the river. Improvements to these barriers will make approximately 7.2 miles of spawning habitat upstream of the Grandee Diversion Dam accessible to fall-run chinook salmon and steelhead. The project consists of modifications to the two fish ladders at Grandee Diversion Dam to meet current

CDFG hydraulic criteria for fish passage; construction of a flow barrier on the left bank dam to eliminate misdirected fish attraction flows; and construction of weirs or channels with flashboards to increase successful fish passage at three summer dams that exist in the lower Consumes River. After completion of these structures, a project monitoring program, in cooperation with CDFG's stream development program and with review and approval by CALFED, will be implemented to document the project's benefits. This project's total cost is estimated at \$376,510 of which 50 percent of the project (\$188,255) is being funded through the Bay-Delta Act appropriation.

**Completion Date:** December 31, 2002

**Fourth Quarter Accomplishments:** All federal, state and local permits have been applied for and continue to be under review. Final design drafts have been submitted pending final design specifications due in January 2000. Project proponents are continuing to negotiate with land owners regarding final design and alternatives. Engineering plan development will commence with issuance of final design specifications; and instream activity cannot commence until the river is at lowest level.

## 2. **Project Title:** 1999 PSP Fish Passage Projects under Negotiation

CALFED Recommended Level of Funding:	\$2,743,302
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**Funding Provided to:** USBR

**Description:** Through the 1999 PSP, two fish passage projects were selected and approved. Negotiations and agreement preparations are underway with the project proponents as follows:

1999 Projects	Expected Award Date	Recommended Funding Level	Funding Recipient
Fish Passage Improvement Project at the Red Bluff Diversion Dam, Phase II	3/1/00	\$1,030,000	TCCA
Improve the Upstream Ladder and Barrier Weir at Coleman National Fish Hatchery in Battle Creek	3/1/00	\$1,713,302	USFWS
Total Under Negotiation		\$2,743,302	

## 3. **Project Title:** ACID Fish Passage Project, Phase I

CALFED Recommended Level of Funding:	\$325,000
Funds Obligated Through September 30, 1999	\$325,000
Funds Expended Through September 30, 1999:	\$325,000

**Funding provided to:** USBR agreement signed with ACID on August 18, 1998



**Project Description:** ACID project is located within a critically important reach for spawning chinook salmon and steelhead in the upper Sacramento River. This diversion has long been identified as a high priority entrainment and passage problem. To correct these problems, the project will construct a new fish screen and two ladders. A feasibility study, along with preliminary work on the permit application process, environmental documentation and project design, was performed under Phase I. Phase II will complete feasibility and alternatives analysis, final project design and environmental documents and permits. In Phase III, a construction contract is expected to be awarded by November 1999 and construction will begin early in 2000. It is planned that the new facilities will be fully operational by April 2001. The project will directly benefit all anadromous Sacramento River fish species within this important spawning reach for federal and state-listed endangered winter-run chinook salmon and all other upper Sacramento River salmon runs currently proposed for listing. The project will also reduce stranding and entrainment, improve access to under utilized habitat and increase production of natural runs of anadromous salmonids and sturgeon. The total estimated cost for Phase III is \$10,506,000. The State of California will provide an additional \$5,253,000 from Proposition 204 funds to fully fund this phase of the project.

**Project Completed:** March 31, 1999 - Phase I work completed.

4. **Project Title:** ACID Fish Passage and Fish Screen Improvement, Phase III

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CALFED Recommended Level of Funding:	\$5,253,000
Funds Obligated Through September 30, 1999	\$5,100,219
Funds Expended Through September 30, 1999:	\$2,433

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**Funding provided to:** USBR agreement signed with ACID on August 6, 1999

**Project Description:** See description under Phase I above.

**Completion Date:** December 31, 2005

**Fourth Quarter Accomplishments:** ACID coordinated project monitoring and management and conducted agency workshops in accordance with agreement requirements. In addition, preparation of environmental documentation is in progress, including work on the permit application process and the Monitoring Plan.

5. **Project Title:** Battle Creek Salmon and Steelhead Restoration Project

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CALFED Recommended Level of Funding:	\$28,000,000
Funds Obligated Through September 30, 1999	\$3,482,686
Funds Expended Through September 30, 1999:	\$464,877

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**Funding provided to:** USBR

**Project Description:** This project would implement changes to PG&E hydropower facilities and operations on Battle Creek's north and south forks and key tributaries. The proposed project

includes (1) decommissioning and removing five diversion dams (Wildcat, Coleman, South, Lower Ripley and Soap Creek Diversion Dams); (2) constructing ladders at three diversion dams (Eagle Canyon, North Battle Creek Feeder and Inskip Diversion Dams) and screening their associated diversions; (3) increasing flow releases from remaining diversion dams; and (4) constructing powerhouse tailrace connectors to eliminate redundant screening and mixing of north and south fork waters. The project will create an Adaptive Management Plan that includes the establishment of two funds which may be used in the future to fine tune the proposed project to help ensure its success. Implementation of the project will be a collaborative effort of USBR, PG&E, NMFS, USFWS, CDFG, DWR, State Water Resources Control Board and the local Battle Creek Watershed Conservancy. Ultimately, the project will be operated and maintained by PG&E. The estimated total cost of this project is \$50,509,000, including \$20,821,000 for construction of facilities; \$22,188,000 for releases of increased flows in the river (foregone power); \$1,500,000 for monitoring; \$3,000,000 for future water acquisition for increased water flows, if necessary; and \$3,000,000 for an adaptive management fund. Of the total estimated cost, about 40 percent is expected to come from PG&E, about 55 percent from federal and state agencies and about 5 percent from third-party contributors. USBR expects to initiate construction by November 2000.

**Completion Date:** December 31, 2002

**Fourth Quarter Accomplishments:** Work during the fourth quarter included: (1) developing draft communication protocols and a draft hybrid license amendment process in coordination with FERC; (2) initiating the contractor selection process for completing NEPA/CEQA environmental documentation and other regulatory compliance activities; (3) initiating concept design activities associated with all the screen and ladder facilities; (4) initiating concept design activities associated with the powerhouse tailrace connector and bypass facilities; (5) design data collection including topographic surveying, planning geologic drilling activities, and gathering other assorted technical data to establish technical criteria; (6) completing a draft report documenting alternative concepts and plans considered in the formulation of the project; and (7) completion of various public involvement activities including a tour for the California Water Commission, interviews and site visits with various television news channels, and preparation of a 10-minute video about the project by PG&E.

## 6. **Project Title:** Fish Passage Project at Battle Creek

CALFED Recommended Level of Funding:	\$395,000
Funds Obligated Through September 30, 1999	\$395,400
Funds Expended Through September 30, 1999:	\$10,688

**Funding Provided to:** USBR agreement signed with DWR on September 10, 1998

**Project Description:** DWR will conduct a topographic survey and produce a map of the upstream and downstream areas of each diversion of the Battle Creek hydroelectric system. DWR will also install, operate and maintain 19 temporary water temperature recorders and 4 stream gauging stations at various locations on Battle Creek. Further, DWR will develop preliminary designs for fish ladders and screens at three of five diversion points on Battle Creek. Finally, DWR will perform an

environmental investigation regarding the impacts of constructing fish ladders and screens at all five diversion locations on the Battle Creek and prepare a report of this investigation suitable for use in NEPA/CEQA documents supporting an EIS/EIR. The EIS/EIR will be performed in conjunction with the Battle Creek Salmon and Steelhead Restoration Project. The objective of this project is to have preliminary designs and environmental work substantially complete so the final design can be completed and the construction process can proceed in the phased restoration program being developed by the Battle Creek Working Group. In addition to the funding provided by the Bay-Delta Act, the Metropolitan Water District of Southern California will provide Category III funds in the amount of \$395,000 to support this project.

**Completion Date:** April 15, 2000

**Fourth Quarter Accomplishments:** DWR has conducted the topographic survey and has begun a preliminary design of a new fish ladder and fish screen for the Coleman Diversion structure. This project's scope is currently being adjusted to reflect authorization and funding of the Battle Creek Salmon and Steelhead Restoration Project, Project No. 5 of this Section. An over obligation of \$400 has occurred which will be investigated and adjusted in the next quarterly report.

#### 7. **Project Title:** Lower Butte Creek Project, Phase II

CALFED Recommended Level of Funding:	\$775,000
Funds Obligated Through September 30, 1999	\$750,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with Ducks Unlimited, Inc. on September 1, 1999

**Project Description:** Improved fish passage through the Butte Sink and its associated water control structures is expected to improve the long-term sustainability of natural production of anadromous fish populations, in particular spring-run chinook salmon and steelhead. Maintaining the viability of associated managed wetlands and agriculture will also benefits numerous other species.

Phase I of the Lower Butte Creek Project, completed June 30, 1998, was designed as a “grassroots” effort to bring all interested stakeholders together in a public forum to address the diverse issues surrounding the use of Lower Butte Creek water. The result of this effort was an “existing conditions report” that detailed the water control structures located in the study area and listed alternatives to improve fish passage at each control structure site.

Phase II of the Lower Butte Creek Project is the logical progression of work to improve fish passage through the Butte Sink and its associated water control structures. This will involve working with stakeholder groups to select a preferred alternative at each of four sites, resulting in preliminary design of major structural modifications and final design for upgrading the fish passage for Butte Sink. Public scoping will include a review of the fisheries impacts associated with the recommendations prepared by the engineers to correct fish entrainment problems associated with periodic area flooding and resulting receding water.

**Completion Date:** June 30, 2001

**Fourth Quarter Accomplishments:** A competitive solicitation was issued to obtain a consultant to begin the preliminary design work.

8. **Project Title:** Stanislaus River Channel Restoration

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CALFED Recommended Level of Funding:	\$1,038,000
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**Funding Provided to:** USBR agreement terminated with USFWS

**Terminated:** August 20, 1999 – Project terminated and funds deobligated. Project will be dropped from the next quarterly report.

9. **Project Title:** Tuolumne River Setback Levees

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CALFED Recommended Level of Funding:	\$655,000
Funds Obligated Through September 30, 1999	\$655,000
Funds Expended Through September 30, 1999:	\$0

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**Funding Provided to:** USBR agreement signed with USFWS on September 13, 1998

**Project Description:** This project is designed to restore and protect fall-run chinook salmon habitat on the Tuolumne River affected by flooding and gravel mining operations within the floodplain by creating 1,450 linear feet of setback levees, moving 3,000 linear feet of levees and regrading and revegetating 561,400 square feet of floodplain. It is designed to restore the Mining 7/11 Reach (river mile 37.7 to 40.3) to a more natural channel morphology. This project was identified by the Integration Panel as having a high priority and was selected by both the stakeholder groups and the Policy Group as a directed action. Funding sources for this project include: (1) USFWS Anadromous Fish Restoration Program - \$2,855,800; (2) USBR Bay-Delta Program - \$655,000; (3) CALFED Category III Program - \$2,801,000; and (4) the Turlock and Modesto Irrigation Districts - \$50,000.

**Completion Date:** September 30, 2001

**Fourth Quarter Accomplishments:** Environmental permitting and documentation, funded by AFRP and the Turlock and Modesto Irrigation Districts, including NEPA/CEQA and ESA compliance has been completed. Two years of pre-project fisheries, riparian and geomorphic monitoring have been completed under the AFRP agreement. A 1998 project monitoring report is finished. Design work is 90 percent complete and construction is now expected to occur in late fall of 1999. Final details on conservation easements and contaminants surveys still need to be completed before construction proceeds.

Several project modifications to the project design have been approved by the Ecosystem Roundtable Amendments Subcommittee. An increase in project cost of \$707,000 has also been presented to, and conditionally approved by, the Amendments Subcommittee. Final approval of this request must be made by the CALFED Policy Group. The proponent has been unsuccessful in obtaining funding

from other program sources for this increased effort. Funding from the Bay Delta Act appropriation will not be expended until construction begins.



## SECTION C - HABITAT RESTORATION IN FLOODPLAINS AND MARSHES:

CALFED Recommended Level of Funding:	\$	47,159,591
Funds Obligated Through September 30, 1999:	\$	41,652,000
Funds Expended Through September 30, 1999:	\$	13,742,238

### 1. **Program Title:** Floodplain Restoration/Habitat Restoration on Existing Conservation Lands Program

CALFED Recommended Level of Funding:	\$16,700,000
Funds Obligated Through September 30, 1999	\$16,700,000
Funds Expended Through September 30, 1999:	\$247,067

**Funding provided to:** USBR agreement signed with USFWS on August 13, 1998

**Program Description:** This program will focus on opportunities to expand floodways and riparian corridors and provide greater flood management flexibility and ecosystem benefits. It will use the priority species to identify and restore lands within the floodplains of the major rivers or their tributaries. An emphasis will be placed on lands flooded in January 1997. Conservation easements will be given preference if they meet ecosystem restoration objectives. This program will also implement habitat restoration at existing sites already in conservation ownership. USFWS is managing this program and worked with COE, NRCS, BLM, other CALFED agencies and outside experts to develop a proposal solicitation and review process. Proposals were solicited in May 1998; a total of 61 proposals were received. Of these, 20 were selected for funding for a total of \$16,700,000 and are described below. An additional \$862,000 in funding for technical review of this program is included in the Technical Review and Quality Control Program described in Section K.

**Fourth Quarter Accomplishments:** USFWS has signed agreements with 19 project proponents identified through the 1998 PSP for a total of \$16,426,505. Many of these projects involve the acquisition of easements or fee title, and the processes needed to support these acquisitions (e.g., appraisals, contaminant surveys, negotiations) are ongoing. The Nelson Slough Wildlife Area Restoration Project in the amount of \$256,476 (see Project No. O below) has been canceled at the request of the project proponent; and including the canceled project an uncommitted balance of \$273,495 remains for this program. Specific accomplishments for each project follow:

#### A. **Project Title:** Benicia Waterfront Marsh Restoration, Phase I

CALFED Recommended Level of Funding:	\$59,000
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**Funding provided to:** USFWS agreement signed with the City of Benicia on February 3, 1999

**Project Description:** This project will lead to the restoration of an 8-acre saltwater marsh along the Benicia waterfront. Restoration of this marsh will provide vital habitat for plants, fish and wildlife, while providing opportunities for public education about salt marshes. Only the first phase of the project has been funded.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The baseline hydrologic and plant community site analyses were completed. The draft design for the viewing platforms was developed and the conceptual planning for marsh restoration begun.

**B. Project Title:** Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay Ecological Zone

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CALFED Recommended Level of Funding:	\$772,667
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**Funding provided to:** USFWS agreement signed with CSUH, on January 4, 1999

**Project Description:** This project will restore about 272 acres of emergent and submerged marshland at 2 sites in the Suisun Bay/North San Francisco Bay ecological zone. This will involve increasing flows between marshes and the adjacent bay at the Tubbs Island setback site and Peyton Slough. In addition to providing important habitat for Delta fish species, the project includes detailed monitoring designed to develop information to improve the success of future restoration actions.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** Overall monitoring efforts in marshes and soil and plant testing for mercury and lead continues. The sampling sites, including an additional site in a pristine marsh area, span an array of environmental conditions and allow comparisons of results over time.

**C. Project Title:** Butte Creek Acquisition

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CALFED Recommended Level of Funding:	\$125,000
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**Funding provided to:** USBR agreement signed with USFWS on August 13, 1998

**Project Description:** The Research Foundation of CSUC and the Butte Creek Watershed Conservancy are engaged in a long-range watershed management planning effort for Butte Creek in cooperation with landowners, water users, agricultural interests, conservation groups and state and federal agencies under the supervision of the Department of Geography and Planning at CSUC. Protection of critical habitat for the endangered spring-run chinook salmon and steelhead trout populations of Butte Creek is a high-priority for all the agencies working on anadromous fisheries. The purchase of 146 acres of land, with 1.5 miles of creek frontage, would provide an opportunity to develop and demonstrate methods of channel and floodplain management that would help stabilize the sediment and bedload input from the remains of the gravel mining operation. Development of a natural floodplain could have tremendous implications for riparian

plant species and help to cool the stream, filter urban runoff, capture large woody debris and increase the water storage and groundwater recharge capabilities of lower Butte Creek. Funding for this project has been provided through DWR, the State's Proposition 204 and the Bay-Delta Act appropriations Account (total project cost is estimated to be \$547,068).

**Project Completed:** December 31, 1998 – Land acquisition is complete. USBR is awaiting request for reimbursement from USFWS to expend funds.

**D. Project Title:** Butte Creek Riparian Restoration Demonstration

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CALFED Recommended Level of Funding:	\$76,348
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**Funding provided to:** USFWS agreement signed with CSUC on February 11, 1999

**Project Description:** This project is designed to demonstrate state-of-the-art stream restoration in the northern Sacramento Valley. In addition to restoring habitat to benefit the species that use the Butte Creek riparian corridor, including spring-run chinook salmon, the project will be developed for educational and recreational purposes.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** An existing vegetation map has been prepared; and a restoration ecologist has completed an initial survey of the area to prepare a planting plan. An electric gate has been purchased to control entrance and exit from the area; and a sign marker for the area has been ordered to be placed in view of Highway 99.

**E. Project Title:** Cosumnes River Acquisition, Restoration, Planning, and Demonstration Project

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CALFED Recommended Level of Funding:	\$750,000
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**Funding provided to:** USFWS agreement signed with TNC in July 1999.

**Project Description:** This project will contribute to the acquisition, restoration, and protection of 300 acres of fishery, riparian, and wetland habitats along the lower Cosumnes River floodplain. The project is integrated with ongoing efforts in the Cosumnes watershed, and will benefit fall-run chinook salmon, splittail, other fish species, sandhill cranes, waterfowl, and neotropical migratory birds.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The agreement funding this project was awarded this quarter. Work on the project is just beginning. TNC has initiated negotiations for task 1 acquisitions.

**F. Project Title:** Deer Creek/Mill Creek Acquisition and Enhancement

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CALFED Recommended Level of Funding:	\$1,000,000
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**Funding provided to:** USFWS agreement signed with TNC in July 1999.

**Project Description:** This project will contribute to the acquisition, restoration, and management of almost 2000 acres of critical riparian and floodplain easements along the lower and middle reaches of Deer and Mill creeks. It is part of a comprehensive effort to restore and protect a continuous habitat corridor on the tributary streams of eastern Tehama County. By retiring and restoring flood-prone lands, the project will have important benefits for anadromous fish (including spring-run, fall-run, and late-fall-run chinook salmon and steelhead) and other fish and wildlife.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The agreement funding this project was awarded this quarter. TNC has initiated negotiations for the acquisition of easements on four properties. An appraisal of one of the properties has been completed.

**G. Project Title:** Fern-Headreach Tidal Perennial Aquatic & Shaded River Aquatic Conservation Project

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CALFED Recommended Level of Funding:	\$425,000
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**Funding provided to:** USFWS agreement signed with Thomas Luckey, L & L Farms on April 6, 1999

**Project Description:** This project, through local acquisition and a conservation easement, will result in the permanent protection of the 168-acre Fern-Headreach Island. This area includes about 28 acres of shaded riverine habitat, and about 140 acres of tidal marsh, and provides important benefits to delta smelt and other delta fishes.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** Appraisal of the property is completed; the appraisal is being reviewed for consistency with federal standards. All parties have agreed to the conservation easement language. Once the appraisal review is completed and the appraisal is approved, the project proponent will acquire the island which is anticipated to occur by December 1999.

**H. Project Title:** Floodplain Acquisition, Management, and Monitoring on the Sacramento River

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CALFED Recommended Level of Funding:	\$1,000,000
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**Funding provided to:** USFWS agreement signed with TNC in July 1999.

**Project Description:** This project provides funds for the acquisition and management of fee title or easement interests on floodplain lands within the Sacramento River Conservation Area between Keswick and Verona. It will protect and improve essential spawning, rearing, and migratory habitat for chinook salmon and other riparian species.

As this is a continuation of an earlier Proposition 204 funded project (#97-N02) preliminary project work had already been completed. TNC proposes to use the funds provided by this project as a portion of the acquisition cost of the Repanich property.

The Repanich property is located along the West bank of the Sacramento River at river mile 216.5, directly across the river from the River Vista Unit of the Sacramento River National Wildlife Refuge. The property consists of two parcels, A and B.

Parcel A (181.03 acres) is within the "inner-river zone", also known as the "150 year meander zone", as those terms are defined by the SB 1086 Draft Restoration Handbook (May 1998). Parcel A is planted to walnuts with associated riparian forest, gravel bar, plus lower Jewett Creek, including its confluence with the Sacramento River.

Parcel B (113.24 acres) is outside of the inner-river zone. Parcel B is planted to walnuts and includes a recently constructed custom home, walnut huller, and shop.

Acquisition of Parcel A is essential to recreating a continuous riparian corridor along the river and reconnecting the river to its traditional floodplain. Parcel B will be purchased with the intent to resell it for continued agricultural and residential use. The relative sizes of Parcels A and B may change after completion of a preserve design and management plan.

The appraised price of Parcel A is approximately \$1,700,000. The appraised price of Parcel B is approximately \$800,000. TNC will request that the 11420-9-J047 funds be applied to the purchase of the Repanich property. The remainder of the purchase price will be funded by interim financing provided by a Program Related Investment from the Packard Foundation. Following completion of a site-specific plan, preserve design and management plan nonessential portions of Parcels A and B will be resold for continued agricultural and residential use with the proceeds of sale used to repay interim financing.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The agreement funding this project was awarded this quarter. TNC has initiated discussions with USFWS and other involved parties, including other funding sources, about the acquisition, restoration, and management of the property.

#### **I. Project Title:** Grayson River Ranch Perpetual Conservation Easement and Restoration

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CALFED Recommended Level of Funding:	\$732,000
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**Funding provided to:** USFWS agreement signed with East Stanislaus RCD and the Friends of the Tuolumne River on January 8, 1999

**Project Description:** Funds provided through this agreement are to complete an easement purchase and to fund restoration activities which will restore about 140 acres of riparian forest and floodplain along 1.2 miles of the Tuolumne River. Floodplain restoration in this area will provide downstream flood protection as well as improved fish and wildlife habitat. Riparian habitat restoration will benefit the San Joaquin fall-run chinook salmon that spawn in the Tuolumne River, as well as waterfowl, songbirds, and other riparian species. This project is

being implemented in cooperation with the NRCS Wetlands Reserve Program and the USFWS AFRP.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** A conservation easement providing for the restoration of riparian forests and other habitats on 136 acres of the project area was acquired by the project proponent. A detailed restoration plan for the site is being developed.

J. **Project Title:** Hill Slough West Habitat Restoration Demonstration Project, Phase I

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CALFED Recommended Level of Funding:	\$200,000
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**Funding provided to:** USFWS agreement signed with to CDFG on January 7, 1999

**Project Description:** This project will restore tidal action to approximately 200 acres of seasonal and permanent wetlands in northeastern Suisun Marsh. Implementation will be carried out in four phases (this funding covers only the first phase) over approximately five years. The project is a collaborative effort to restore a transitional gradient from perennial aquatic habitat in Hill Slough to low marsh, high marsh, and upland habitats at higher elevations.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** An RFP has been written to hire a consultant to conduct detailed topographic and hydrologic assessments of the project area. During this quarter, the interagency project team reviewed and approved the RFP, which was then sent to Sacramento for advertising in the State Contracts Register. The advertisement will appear on October 1, 1999.

K. **Project Title:** Lower Clear Creek Floodway Restoration Project

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CALFED Recommended Level of Funding:	\$3,559,596
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**Funding provided to:** USFWS agreement signed with Western Shasta RCD on April 1, 1999

**Project Description:** This project will restore almost 3 miles (in two reaches) of stream channel and floodplain on public lands along Clear Creek by actively restoring a natural channel and floodplain morphology and revegetating the newly created floodplain with native riparian vegetation. This will provide new spawning habitat for chinook salmon in one of the watersheds with the most opportunities to restore anadromous fish, as well as other benefits to riparian- and floodplain-dependent fish and wildlife.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The RCD is been preparing public contract and bid documents. The NEPA/CEQA public review process is underway. Environmental permits and bid documents are being supplied through contracts with USBR. Initiation of construction activities is dependent on delivery under these contracts.

L. **Project Title:** Lower Mill Creek Riparian Restoration

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CALFED Recommended Level of Funding:	\$30,000
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**Funding provided to:** USBR agreement signed with USFWS on August 13, 1998

**Project Description:** The proposed project will restore and enhance native riparian vegetation on one or more parcels along lower Mill Creek, a high-priority tributary of the upper Sacramento River. The project will focus on one or more identified gaps in existing riparian habitat along lower Mill Creek and will contribute toward the long-range goal of restoring a continuous corridor of native riparian vegetation.

The Mill Creek Conservancy and TNC will coordinate project implementation with the landowner, teachers and students from the Los Molinos High School and the Mill Creek Watershed Advisory committee. Specific tasks will include planting native shrubs and trees adjacent to existing vegetation to fill gaps in the riparian corridor, controlling invasive non-native plants and monitoring plant survival and water temperature. Funding for this project has been provided through the State's Proposition 204, the Bay-Delta Act and other local districts (total project cost is estimated to be \$238,000).

**Completion Date:** April 28, 2001

**Fourth Quarter Accomplishments:** Contracts are being let to CSUC and Los Molinos High School to collect seeds for the propagation of native vegetation. Planting crews are being coordinated and scheduled for Spring 2000.

**M. Project Title:** Lower San Joaquin River Floodplain Protection & Restoration

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CALFED Recommended Level of Funding:	\$1,100,000
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**Funding provided to:** USFWS

**Project Description:** This project will result in the acquisition of approximately 303 acres of land within the lower San Joaquin River floodplain and the restoration of riparian and other wetland habitats for the benefit of numerous species including the Aleutian Canada goose, greater sandhill crane, western yellow-billed cockoo, riparian brush rabbit, giant garter snake and western pond turtle.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** Negotiations with landowners are ongoing; a formal offer was submitted late in the fourth quarter. USFWS has completed the appraisals for multiple properties included in the acquisition. NEPA documentation is complete via the Record of Environmental Consideration signed by the California/Nevada Operations Manager on April 20, 1999.

**N. Project Title:** Merced River Salmon Habitat Enhancement, Phase III

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CALFED Recommended Level of Funding:	\$2,433,759
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**Funding provided to:** USFWS agreement signed with CDFG on April 19, 1999

**Project Description:** This project will improve conditions for chinook salmon in the Merced River by developing and improving spawning and rearing habitat, and by removing habitat favored by fish species, including non-native species, that prey on juvenile salmon.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** CDFG received a signed access agreement from the landowner of the project site. Project activities during this period included project management, initiation of environmental documentation and permitting, and design and engineering. Long-term easements within and surrounding the project site continue to be negotiated. Sensitive plant surveys for the Robinson site have been completed; and surveys for sensitive mammals and for the valley elderberry longhorn beetle have been initiated, and are expected to be completed in fall 1999. Construction at the project site will begin in 2001 and be completed in 2002. A draft revised project schedule has been prepared, to be finalized in the first quarter of FY 2000.

**O. Project Title:** Nelson Slough Wildlife Area Restoration Project

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CALFED Recommended Level of Funding:	\$256,476
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**Funding provided to:** USFWS

**Terminated:** June 29, 1999 – Project proponent, CDFG, withdrew proposal. Project will be dropped from the next quarterly report.

**P. Project Title:** Petaluma Marsh Expansion Project - Marin County

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CALFED Recommended Level of Funding:	\$352,135
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**Funding provided to:** USFWS agreement signed with the Marin Audubon Society on January 7, 1999

**Project Description:** This project will restore and permanently protect 181.46 acres of tidal marshland. Of this acreage, 109.72 acres of previously diked marshland will be restored to tidal marsh status. Upon completion of the acquisition and restoration, the site will be transferred to CDFG. This site will become part of the 2000-acre Petaluma Marsh, the largest undiked tidal marsh remaining in San Francisco Bay. The project will benefit a number of fish species as well as salt marsh residents like California clapper rails and San Pablo song sparrows, among other migratory songbirds and waterbirds.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** An updated appraisal has been completed. Current estimated market value for the property exceeds the funding provided for acquisition. Marin Audubon Society staff are continuing negotiations with the landowners and searching for other sources of contributed funds. In the meantime a draft restoration plan is being developed in cooperation with the California Department of Transportation.

**Q. Project Title:** Rhode Island Floodplain Management & Habitat Conservation

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CALFED Recommended Level of Funding:	\$25,000
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**Funding provided to:** USFWS agreement signed with CDFG on April 9, 1999

**Project Description:** Rhode Island, a 67-acre Delta island owned by CDFG, was breached in 1938. There are opportunities for significant improvements to riparian and wetland habitats on the island. In addition, habitat restoration on Rhode Island will provide important information that will help guide future restoration of other small Delta islands. The first phase, including site surveys and the development of an initial restoration plan, is funded through this agreement.

**Completion Date:** June 30, 2000

**Fourth Quarter Accomplishments:** Literature and historical record review is currently underway, as are carrying capacity studies of the island's structure. CDFG has initiated preparation of a construction proposal which will be completed in the first quarter of FY 2000.

**R. Project Title:** South Napa River Slough and Floodplain Restoration Project, Phase I

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CALFED Recommended Level of Funding:	\$1,455,000
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**Funding provided to:** USFWS agreement signed with the City of American Canyon on January 9, 1999

**Project Description:** The purpose of this project is to restore existing city-owned wastewater treatment ponds to tidal wetlands, acquire and restore adjacent degraded tidal wetlands and create a visitor's viewing area and interpretive program. Phase I is the acquisition of lands from the Port of Oakland. Phase II of this project is described under Project No. 14 in this Section.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The City of American Canyon and the Port of Oakland agreed on terms of the sale of the project site to the City. Final federal compliance activities, including appraisal review and a hazardous materials assessment, are being concluded. The City completed wetlands delineation at the project site and prepared a preliminary draft design of the Phase II site restoration. Once completed, the purchase will be funded and title to the property transferred to the City.

**S. Project Title:** South Napa River Wetlands Acquisition & Restoration Program

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CALFED Recommended Level of Funding:	\$431,000
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**Funding provided to:** USFWS agreement signed with the Napa County Land Trust on January 7, 1999

**Project Description:** This project will restore and permanently protect historical wetlands adjacent to the Napa River near the City of Napa, California. Seventy-seven acres of historical

wetlands will be acquired and existing levees modified or removed to restore and enhance the natural tidal wetland functions and benefit delta smelt and other Delta fishes.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** The land acquisition process is in progress. The project proponent is working with area landowners to identify willing sellers in the area. The federal and local environmental impact report on this project has been approved.

**T. Project Title:** Stone Lakes National Wildlife Refuge Land Acquisition

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CALFED Recommended Level of Funding:	\$1,900,000
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**Funding provided to:** USFWS

**Project Description:** This project will add 555 acres to Stone Lakes National Wildlife Refuge. This property has outstanding potential for both floodplain management and habitat restoration. Tidal and seasonal wetlands, lakes, riparian corridors, and upland habitats will be protected and restored, with benefits to delta smelt, splittail, giant garter snakes, Swainson's hawks, and other fish and wildlife species.

**Completion Date:** September 30, 2002

**Fourth Quarter Accomplishments:** Negotiations with current property owners continue. A third party is also considering acquisition of the property for possible use as a habitat mitigation bank, with long-term management by USFWS. Discussions with these parties also continue.

**2. Program Title:** Habitat Restoration/Flood Control Bypasses Program

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CALFED Recommended Level of Funding:	\$1,200,000
Funds Obligated Through September 30, 1999	\$1,200,000
Funds Expended Through September 30, 1999:	\$12,226

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**Funding provided to:** USBR agreement signed with COE on September 25, 1998

**Project Description:** The current flood control bypasses along the Sacramento River provide seasonally flooded habitat, but also result in the stranding of juvenile salmonids and other Delta fish. This program will evaluate restoration needs and opportunities to improve habitat, reduce stranding and improve connectivity with the Sacramento River and the north Delta. Elements to be evaluated include: (1) improving existing habitats; (2) improving streamflows within the bypasses and their associated sloughs, (3) improving wetland, riparian, slough, agricultural and shaded reverie aquatic habitats, (4) eliminating fish barriers, (5) reducing fish entrainment and stranding, (6) developing wildlife and fisheries friendly levee maintenance programs, (7) developing consensus based plans by implementing pilot projects, (8) developing information on compatibility with the ecology and (9) developing information on bypass characteristics for improvement plans. The proposed actions will be developed to avoid conflicts with existing and future flood control needs. COE will work

with CALFED staff to develop this program in accordance with Ecosystem Roundtable and Policy Team requirements.

**Completion Date:** September 30, 2001

**Fourth Quarter Accomplishments:** See detail below.

**A. Project Title:** 1999 PSP Habitat Restoration/Flood Control Bypasses Program Projects Under Negotiation

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CALFED Recommended Level of Funding:	\$820,679
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**Project Description:** Through the 1999 PSP, one project was selected and approved for this Program. Negotiations and agreement preparations are underway with the project proponent as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Inundation of a Section of the Yolo Bypass to Restore Sacramento Splittail and to Support a Suite of Other Anadromous and Native Species in Dry Years (Phase I: Baseline Monitoring, Alternatives Analysis and Design)	Pending	\$820,679	NHI
Total Under Negotiation		\$820,679	

**3. Project Title:** 1999 PSP Habitat Restoration in Floodplains and Marshes Projects Under Negotiation

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CALFED Recommended Level of Funding:	\$5,100,813
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**Funding provided to:** USBR

**Project Description:** Through the 1999 PSP, five projects were selected and approved for this Topic Area. Negotiations and agreement preparations are underway with the project proponents as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Development of an Implementation Plan for Lower Yuba River Anadromous Fish Habitat Restoration	Pending	\$176,130	Surface Water Resources, Inc.
Riparian Corridor Acquisition and Restoration Assessment	3/15/00	\$2,240,250	BLM
South Napa River Tidal Slough and Floodplain Restoration Project, Phase II	1/14/00	\$1,565,600	City of American Canyon



Species and Community Profiles of the San Francisco Bay Area Wetlands Ecosystem Goals Project	Pending	\$45,320	Friends of the San Francisco Estuary
Understanding Tidal Marsh Restoration Processes and Patterns	1/14/00	\$1,073,513	University of Washington
Total Under Negotiation		\$5,100,813	

**4. Project Title:** Bear Creek Floodplain Restoration Demonstration Project

CALFED Recommended Level of Funding:	\$334,000
Funds Obligated Through September 30, 1999	\$334,000
Funds Expended Through September 30, 1999:	\$331,408

**Funding provided to:** USBR agreement signed with USFWS on March 11, 1998

**Project Description:** This project involves development a the Unet hydraulic model has been completed and five-year return flow mapping reviewed. The available data suggest a need to review the scope of work and possibly revise the project alternatives. It appeared that several alternatives that were previously considered not viable should receive further consideration given the model results about water elevations at specific sites. A meeting with stakeholders has been scheduled to review progress and consider revisions to the project, including changes to the schedule and completion of a feasibility analysis for restoring floodplain functions along the San Joaquin River and Bear Creek on public lands to provide flood protection benefits, enhance shaded riverine aquatic habitat and wetlands and improve instream habitat for the San Luis National Wildlife Refuge Complex. Project studies will include geomorphic channel effects and floodplain hydraulics. Benefits are expected to accrue to migratory birds, San Joaquin fall-run chinook salmon and several other fish species, in addition to increased flood control benefits.

**Completion Date:** January 30, 2000

**Fourth Quarter Accomplishments:** The Unet hydraulic model has been completed and 5-year return flow mapping reviewed. The available data suggests a need to review the scope of work and possibly revise the project alternatives. It appeared that several alternatives that were previously considered not viable should receive further consideration given the model results about water elevations at specific sites. A meeting with stakeholders has been scheduled to review progress and consider revisions to the project, including changes to the schedule.

**5. Project Title:** Cache Slough Shaded Riverine Aquatic Habitat Enhancement

CALFED Recommended Level of Funding:	\$85,000
Funds Obligated Through September 30, 1999	\$85,000
Funds Expended Through September 30, 1999:	\$11,685

**Funding provided to:** USBR agreement signed with RD 2060 on June 2, 1998

**Project Description:** RD 2060 proposes restoration of approximately 2,000 linear feet of levee bank where erosion has destroyed shaded riverine aquatic habitat and created erosion pockets. This will be Phase I of the project, which involves surveys, designs and environmental documentation. Phase II will be the actual construction work, which is not a part of this agreement. Instead of utilizing traditional erosion repair (i.e., fill and riprap), RD 2060 plans to stabilize the bank using bioengineering (i.e.; biologs [fibre rolls filled with soil and seeds to provide natural erosion control] reed rolls, sod, etc.) to encourage habitat that will benefit target priority species, including the Delta smelt.

**Completion Date:** September 30, 1999

**Fourth Quarter Accomplishments:** Based on preliminary review of draft reports, topographic and biological surveys are being developed in the first quarter of FY 2000. Preliminary design work is continuing including biological design consultation. A revised workplan schedule is being developed by the consulting contractor to support a time extension request on the project.

**6. Project Title:** Cosumnes River Floodplain Acquisition

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CALFED Recommended Level of Funding:	\$3,500,000
Funds Obligated Through September 30, 1999	\$3,500,000
Funds Expended Through September 30, 1999:	\$3,500,000

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**Funding provided to:** USBR agreement signed with TNC signed on July 8, 1998

**Project Description:** TNC and the Wildlife Conservation Board collaborated to acquire 3 three properties (Whaley, Denier and Park) from private willing sellers, for a total of 2,245 acres. The title of these properties was vested with the Board, the State Lands Commission or TNC and are now part of the Cosumnes River Preserve. The Preserve, a multi-partner effort, has successfully protected and restored riparian forest, seasonal wetland and tidal habitats along the Cosumnes River for 10 years.

**Project Completed:** December 31, 1998 – land acquisitions were completed.

**7. Project Title:** McCormack-Williamson Tract Acquisition

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CALFED Recommended Level of Funding:	\$5,356,000
Funds Obligated Through September 30, 1999:	\$5,250,000
Funds Expended Through September 30, 1999:	\$5,200,000

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**Funding provided to:** USBR agreement signed with USFWS on August 20, 1999

**Project Description:** The McCormack-Williamson Tract is a critically important property in pursuing ecological restoration of the northern Delta and linking the habitat corridor along the

Mokelumne River. Benefits from the acquisition include the protection of farmland, with high seasonal habitat value for sandhill cranes and waterfowl, and wetlands and aquatic species. Acquisition and restoration of the island also has the potential to address and resolve critical flood-related issues in the area.

**Project Completed:** September 30, 1999 – TNC acquired McCormack-Williamson Tract on September 30, 1999.

8. **Project Title:** McCormack-Williamson Tract's Wildlife - Friendly Levee Management Program

CALFED Recommended Level of Funding:	\$860,778
Funds Obligated Through September 30, 1999	\$860,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with USFWS on August 20, 1999

**Project Description:** Restoration of this island has the potential to help resolve critical flood-related issues in this area, including identification of levees most in need of reinforcement and alternative planting strategies for levee and island stabilization, while providing important habitat benefits in the north Delta

**Completion Date:** August 30, 2002

**Fourth Quarter Accomplishments:** USFWS and TNC are negotiating an agreement, which is expected to be finalized during the first quarter of FY 2000, to implement this project.

9. **Project Title:** Napa River Wetlands Acquisition

CALFED Recommended Level of Funding:	\$1,000,000
Funds Obligated Through September 30, 1999	\$1,000,000
Funds Expended Through September 30, 1999:	\$920,000

**Funding provided to:** USBR agreement signed with Napa County Land Trust on September 24, 1998

**Project Description:** This project will allow acquisition of approximately 68 acres of diked, historic wetlands along the Napa River. The land will be restored to its former historic state through development of floodplains and marsh plains. This project will restore several of CALFED's priority habitats, including seasonal wetland habitats with floodplains, instream aquatic habitat of the Napa River, riparian habitat and saline emergent wetlands habitat in the tidal brackish marsh and is a phased approach to land acquisition and restoration. Once acquired by the Napa County Land Trust, the title to this property will be simultaneously conveyed to CDFG, along with the responsibility for maintenance. Restoration activities will be undertaken by CDFG and COE.

**Completion Date:** September 30, 2000

**Fourth Quarter Accomplishments:** Wetland delineations and the Regional Water Quality Control Board Certification were completed this quarter. Property appraisals were initiated and all properties have been categorized, i.e., all parcels are within the 1-A category. Discussions continue with willing sellers.

**10. Project Title:** Prospect Island Habitat Protection Project

CALFED Recommended Level of Funding:	\$2,000,000
Funds Obligated Through September 30, 1999	\$2,000,000
Funds Expended Through September 30, 1999:	\$1,688,723

**Funding provided to:** USBR agreement signed with COE on September 17, 1998

**Project Description:** COE and DWR are co-sponsors of this project, which is designed to recover loss of the valuable riparian ecosystem on Prospect Island by repairing levees and returning the island to its pre-flood condition. The project scope includes closing the breach in the Port of Sacramento's Miner Slough levee, dewatering the island, sampling the entrapped fish for threatened or endangered species and returning them to the natural waterways, repairing the cross levee breach and armoring the cross levee with riprap. The project will provide a better guarantee that USBR's property will remain dry and not be inundated. These project features will return the island to a stable condition and save the significant riparian communities on the Prospect Island levees.

The overall project is designed to restore 1,200 acres of freshwater tidal marsh and riparian habitat in the Delta. This would provide beneficial rearing habitat for fry and juvenile chinook salmon; spawning and rearing habitat for resident Delta fish, such as Delta smelt and splittail; and habitat for waterfowl and shorebirds. USFWS will include the project in the proposed North Delta National Wildlife Refuge.

**Completion Date:** June 30, 2000

**Fourth Quarter Accomplishments:** In the third quarter, the final pump out of Prospect Island north of the cross levee area was completed. Any needed riprap will be placed on the cross levee prior to the winter rainy season.

**11. Project Title:** Regional Wetlands Goals Project

CALFED Recommended Level of Funding:	\$76,000
Funds Obligated Through September 30, 1999	\$76,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with EPA on August 25, 1998

**Project Description:** This project is a multi-agency, interdisciplinary planning effort to identify the kinds, amounts and distribution of wetlands and related habitats needed to sustain diverse and healthy communities of fish and wildlife in the northern San Francisco Bay and Suisun Bay

subregions. The habitat restoration goals for this project will provide the biological basis for regional wetlands management and guidance for private, local, state and federal entities seeking to protect and improve the region's wetlands. EPA is working with the San Francisco Estuary Institute to accomplish the goals of this project, which include a biological monitoring plan that identifies objectives of monitoring, obtaining all necessary environmental documentation and reporting on information obtained.

**Project Completed:** March 31, 1999 -- The final report "Baylands Ecosystem Habitat Goals: A Report of Habitat Recommendations Prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project" was released at the State of the Estuary Conference in March 1999. The report has received good media coverage and was widely distributed. USBR is awaiting request for reimbursement from EPA to expend the funds.

## 12. **Project Title:** San Joaquin Floodplain Acquisition and Riparian Restoration

CALFED Recommended Level of Funding:	\$10,947,000
Funds Obligated Through September 30, 1999	\$10,647,000
Funds Expended Through September 30, 1999:	\$1,831,129

**Funding provided to:** USBR agreement signed with USFWS on March 11, 1998

**Project Description:** This project consists of acquisition, preservation and restoration of 6,169 acres of fish and wildlife habitat along the San Joaquin River floodplain for the San Joaquin River National Wildlife Refuge, which will provide benefits to migratory birds and other bird species, splittail and San Joaquin fall-run chinook salmon. The project will provide increased flood protection through widening the floodplain and transient storage of floodwaters. USFWS is combining Bay-Delta Act funding with funds from NRCS's Emergency Watershed Protection Program (\$5,000,000) and USFWS's Emergency Supplemental Appropriation (\$5,000,000).

**Completion Date:** December 31, 2000

**Fourth Quarter Accomplishments:** To date, 3,231 acres have been acquired of which the 2,030.43 acre Hagemann property was partially funded with Bay-Delta Act funds (\$1,558,854). Progress has been made on the hydraulic model, and a revised completion schedule has been devised. The new estimated completion date for the hydraulic model is now January 2000. A final report on the biological monitoring was prepared and submitted to CALFED. All remaining tasks are related to the acquisition of real property from willing sellers. Negotiations have begun with the landowners of the properties being considered.

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## SECTION D - RIVER CHANNEL CHANGES

CALFED Recommended Level of Funding:	\$	15,233,060
Funds Obligated Through September 30, 1999:	\$	14,877,210
Funds Expended Through September 30, 1999:	\$	8,808,932

### 1. **Project Title:** 1999 Directed Action River Channel Changes Projects Under Negotiation

CALFED Recommended Level of Funding:	\$130,000
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#### **Funding provided to:** USBR

**Project Description:** Through the 1999 Directed Action Solicitation, four projects were selected and approved for this Topic Area. To date, three agreements have been awarded and are detailed in Project Nos. 3, 5, and 6 below. One agreement is under negotiation with the project proponent as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Preliminary Design and Engineering of the Lower Western Stone Restoration Site, Merced River	Pending	\$130,000	DWR
Total Under Negotiation		\$130,000	

### 2. **Project Title:** Liberty Island Acquisition

CALFED Recommended Level of Funding:	\$8,926,000
Funds Obligated Through September 30, 1999	\$8,747,000
Funds Expended Through September 30, 1999:	\$8,563,784

#### **Funding provided to:** USBR agreement signed with USFWS on March 20, 1998

**Project Description:** Funding for this project will cover the full acquisition costs for the purchase of Liberty Island, approximately 4,760 acres. The island is strategically located in the north Delta at the southern end of the Yolo Bypass. The acquisition and eventual restoration will provide potential wetland, shaded riverine aquatic and instream habitat for winter-run chinook salmon, Delta smelt, splittail and other species.

**Completion Date:** January 30, 2000

**Fourth Quarter Accomplishments:** TPL closed escrow on and acquired Liberty Island in September 1999. USFWS is continuing work on the required environmental documentation and

public review. On completion of this process, expected in January 2000, TPL will transfer the property to USFWS.

3. **Project Title:** Merced River Salmon Habitat Enhancement, Phase I: Robinson/Gallo Project, Ratzlaff Reach Site

CALFED Recommended Level of Funding:	\$1,633,000
Funds Obligated Through September 30, 1999	\$1,586,350
Funds Expended Through September 30, 1999:	\$2,348

**Funding provided to:** USBR agreement signed with DWR on September 21, 1999

**Project Description:** This is a construction project to mitigate for old gravel mining operations that have created large pits in the Merced River floodplain, destroying salmonid habitat and creating pools for predatory fish. Isolating these pools is critical to restoring habitat and reducing the loss of juvenile fish to unnaturally high levels of predation. With design engineering complete, the Ratzlaff project will begin construction to isolate predator habitat and create improved habitat for chinook salmon and salmonid species. This will include isolating approximately 45 acres of captured ponds, reconfiguring the channel and increasing spawning habitat and creating floodplain that will be replanted with native riparian vegetation. This project is part of the Merced River Habitat enhancement program, which is part of a 3-mile restoration effort associated with the Lower Western Stone Restoration Project.

**Completion Date:** October 30, 1999

**Fourth Quarter Accomplishments:** Construction on the project is 90% complete and started in June 1999 in order to minimize instream impacts.

4. **Project Title:** Sedimentation Movement, Availability and Monitoring in the Delta

CALFED Recommended Level of Funding:	\$1,047,010
Funds Obligated Through September 30, 1999	\$1,047,010
Funds Expended Through September 30, 1999:	\$242,800

**Funding provided to:** USBR agreement signed with USGS on March 18, 1998

**Project Description:** The objective of this study involves the analysis of sediment movement in the Delta, both suspended load and bedload. This analysis is necessary in order to determine the availability, quantity and movement of sediment through the Delta. This study will assist water managers in the evaluation of levee projects, ecosystem restoration efforts and water quality impacts from contaminated sediment. The project includes the installation of monitoring equipment, collection of data and development of a final report.

**Completion Date:** September 30, 2000

**Fourth Quarter Accomplishments:** The data collected to date show that sand waves are ubiquitous, that the riverbeds are subject to several meters of scour and fill in response to storm flows and that bedload can indeed be estimated from bedform movement. Suspended load has not yet been calculated, pending final analysis of water samples and calibration of optical sensors. Preliminary sensor calibration data for the Delta sites were reviewed in the spring of 1999 and calibrations were found to be acceptable, but more high concentration samples will be needed. The qualitative character of the sensor output, however, indicates that suspended-solids concentration in the Delta is less variable than in the Bay during the summer.

As part of the sampling/monitoring effort, the Delta sampling scheme was adjusted to sample every two months during the dry season and every two weeks during the wet season.

**5. Project Title:** Tuolumne River Mining Reach Restoration Project No. 2 - MJ Ruddy Segment

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CALFED Recommended Level of Funding:	\$3,332,050
Funds Obligated Through September 30, 1999	\$3,332,050
Funds Expended Through September 30, 1999:	\$0

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**Funding provided to:** USBR agreement signed with USFWS on September 16, 1999

**Project Description:** The MJ Ruddy project (construction and revegetation) is part of a larger Mining Reach project that will restore a 6.1 mile length of channel and floodplain on the Tuolumne River, between river mile 34.2 and river 40.3. Project No. 2, the MJ Ruddy Segment, is between river mile 36.5 and 37.6. Restoration of this segment will return a 1.1 mile reach of river to a more natural, dynamic channel morphology to improve, restore and protect instream aquatic habitat and shaded riverine aquatic habitat for San Joaquin fall-run chinook salmon productivity and restore natural hydrological and geomorphic processes. Specifically, up to 3,160 feet of dike will be setback, 7,460 lineal feet of floodplain will be reestablished including 15.4 acres of re-vegetation. Restored floodplain will be protected with perpetual restoration easements. Funding sources for this project include: (1) AFRP - \$3,145,000 over FY 1999 and 2000; (2) Bay-Delta Act - \$3,235,000; and (3) the Turlock and Modesto Irrigation Districts - \$75,000.

**Completion Date:** March 30, 2002

**Fourth Quarter Accomplishments:** Much of the environmental documentation and pre-project monitoring has been initiated under an AFRP agreements. USFWS anticipates entering into subcontracts with the Turlock and Modesto Irrigation Districts, the entities responsible for implementation, during the first quarter of FY 2000.

**6. Project Title:** Tuolumne River Special Run Pool (SRP) 10 Restoration

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CALFED Recommended Level of Funding:	\$165,000
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Funds Obligated Through September 30, 1999      \$164,800

Funds Expended Through September 30, 1999:      \$0

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**Funding provided to:** USBR agreement signed with USFWS on September 16, 1999

**Project Description:** The SRP 10 project is part of the Tuolumne River Restoration Project which is designed to restore and protect fall-run chinook salmon habitat on the Tuolumne River affected by flooding and gravel mining operations within the floodplain by rebuilding a 2,100 foot-long portion of the channel and floodplain starting at river mile 25.4. This agreement covers the costs of: (1) one additional year of pre-project monitoring for SRP 9 (an adjacent site) and SRP 10; and (2) construction to repair a breached dike between the portion of channel to be restored and a larger off-channel pit that currently harbors salmonid piscavores. Completion of environmental documents, permitting is being done for both SRP 9 and 10 using CVPIA-AFRP funding.

**Completion Date:** October 30, 2000

**Fourth Quarter Accomplishments:** Most of the pre-project monitoring work has been completed. Repair of the breeched dike will occur in the summer and fall of 2000 pending completion of environmental permits and documentation. USFWS anticipates entering into subcontracts with the Turlock and Modesto Irrigation Districts, the entities responsible for implementation, during the first quarter of FY 2000.

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## SECTION E - IMPROVED INSTREAM FLOWS

CALFED Recommended Level of Funding:	\$	14,500,000
Funds Obligated Through September 30, 1999:	\$	13,238,358
Funds Expended Through September 30, 1999:	\$	3,007,448

### 1. **Program Title:** Environmental Water Acquisition Program

CALFED Recommended Level of Funding:	\$14,500,000
Funds Obligated Through September 30, 1999	\$13,238,358
Funds Expended Through September 30, 1999:	\$3,007,448

**Funding provided to:** USBR agreement signed with NFWF on September 30, 1998

**Program Description:** The Environmental Water Acquisition Program will be guided by policy principles being developed by the stakeholders through the Ecosystem Roundtable. These principles will focus on fostering local partnerships, ensuring adequate evaluation, avoidance and mitigation of any potential local economic effects and developing activities which provide the greatest ecosystem benefit relative to cost. The Ecosystem Roundtable is currently in the process of developing these principles. The program will focus on activities to improve instream flows to benefit the priority species in cooperation with the existing Water Acquisition Program operating under the Central Valley Project Improvement Act. Activities under this program can include multi-year water transfers or acquisitions, funding for water use efficiency measures to allow increased instream flows and funding for foregone power revenues in exchange for increased bypass flows.

USBR will coordinate this program with CALFED program staff to accomplish the goals of this program.

**Fourth Quarter Accomplishments:** Two water acquisition projects were funded as detailed below.

#### A. **Project Title:** San Joaquin River Revegetation Pilot Project

CALFED Recommended Level of Funding:	\$2,500,000
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**Funding provided to:** USBR agreement signed with Friant Water Users' Authority (FWUA) on September 7, 1999

**Project Description:** This project will provide for augmented flows on the San Joaquin River during mid-June through October 1999 to promote dispersal and germination of seed from native riparian trees and survival of young trees. A field monitoring program will be performed over the term of the project to collect data and interpret the ecological and hydrological benefits of the flow releases.

**Completion Date:** June 30, 2000

**Fourth Quarter Accomplishments:** The majority of 35,000 acre-feet of water was released from Friant Dam down the San Joaquin River from June through September. FWUA has secured 7,000 acre-feet of replacement water. Vegetation sampling and water flow measurements are continuing and half of the groundwater measurement wells have been constructed.

**B. Project Title:** Water Acquisition on the Stanislaus River

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CALFED Recommended Level of Funding:	\$3,000,000
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**Funding provided to:** USBR agreement signed with Oakdale and South San Joaquin Irrigation Districts on July 27, 1999

**Project Description:** This project will acquire 50,000 acre-feet of water on the Stanislaus River for release during the summer of 1999 for high-priority fish and wildlife restoration and enhancement objectives.

**Project Completed:** July 30, 1999 -- 50,000 acre-feet of water was release from New Melones Dam during the month of July for in-stream flow purposes on the Stanislaus River.

**C. Project Title:** Environmental Water Acquisition Program Study

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CALFED Recommended Level of Funding:	\$0
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**Funding provided to:** USBR

**Project Description:** In order to improve coordination between CALFED and CVPIA water acquisition programs, CALFED will conduct a review of the Water Acquisition Program being implemented under the mandate of § 3406(b)(3) of CVPIA. The objective of this study is to determine what is needed to develop and implement an effective, coordinated, long-term water acquisition program. USBR proposes hiring a consultant to prepare an assessment of the CVPIA Water Acquisition Program. The consultant will interview the CVPIA Water Acquisition Program manager as well as other managers of similar water purchase/transfer programs (similar programs include: the State Drought Water Bank, the State Water Project Supplemental Water Purchase Program and the Yakima River Basin Water Enhancement Program). The consultant will prepare a comprehensive report detailing their findings from the interviews.

**Completion Date:** Pending

**Fourth Quarter Accomplishments:** Project on-hold and pending action, the funding has been released to Water Acquisition Program fund.



## SECTION F - WATER QUALITY AND TEMPERATURE IMPROVEMENT

CALFED Recommended Level of Funding:	\$	11,208,615
Funds Obligated Through September 30, 1999:	\$	8,843,649
Funds Expended Through September 30, 1999:	\$	2,655,164

### 1. **Project Title:** 1999 PSP Water Quality and Temperature Improvement Projects Under Negotiation

CALFED Recommended Level of Funding:	\$2,326,849
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#### **Funding Provided to:** USBR

**Description:** Through the 1999 CALFED PSP, two Water Quality and Temperature Improvement projects were selected and approved. Negotiations and agreement preparations are underway with the project proponents as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Determination of the Causes of Dissolved Oxygen Depletion in the San Joaquin River	1/14/00	\$892,400	DWR
Dissolved Organic Carbon (DOC) Release from Delta Wetlands, Part 1	Pending	\$1,434,449	USGS
Total Under Negotiation		\$2,326,849	

### 2. **Project Title:** Assessment of Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed

CALFED Recommended Level of Funding:	\$3,800,000
Funds Obligated Through September 30, 1999	\$3,800,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with San Jose State University Foundation on September 30, 1999

**Program Description:** This funding is for the purpose of completing a series of detailed scientific studies to quantify, assess and evaluate existing mercury levels. It is critical to the success of future restoration activities that there is a better understanding of information that will lead to the reduction of mercury in resident fish tissues to levels that are not harmful to humans or wildlife. In order to

ensure that ecosystem restoration activities do not contribute to a human health risk from mercury contamination, studies need to be undertaken to better understand: (1) The most bioavailable source of mercury in the watersheds; (2) Where the most active methylation is occurring downstream; (3) Existing levels of mercury in sport fish to better evaluate the potential human health risk; (4) Whether mercury levels are high enough to affect birds in the Delta; and (5) How mercury mines and mercury in contaminated sediments can be better managed. The objective of all of these studies is to provide data that will lead to a reduction of mercury in resident Delta fish to levels that are not harmful to humans and wildlife.

**Completion Date:** July 30, 2002

**Fourth Quarter Accomplishments:** A 3-day Scientific Review Committee meeting was held to obtain peer review on the proposed scope of study; additionally a public meeting was held to address general questions and comments. Summaries of the 2 meetings are being prepared.

3. **Project Title:** Assessment of Organic Matter in the Habitat and Its Relationship to the Food Chain

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CALFED Recommended Level of Funding:	\$1,440,649
Funds Obligated Through September 30, 1999	\$1,440,649
Funds Expended Through September 30, 1999:	\$1,083,493

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**Funding provided to:** USBR agreement signed with USGS on March 20, 1998

**Project Description:** This project is a research proposal for a comprehensive assessment of the production, import, utilization and export of the organic matter that serves as food resources for fish in their early life stages. Lower phytoplankton ecosystem functions potentially limit fish population growth in the Delta. The project will benefit multiple-fish species. First year of funding was recommended (total estimated project cost is \$1,400,000 for a 3-year project).

**Completion Date:** March, 31, 2002

**Fourth Quarter Accomplishments:** CSUD participated in a May 1999 sampling trip and, independently, conducted zooplankton growth experiments. The data from the sampling trip was analyzed and presented at a group meeting in September 1999. USGS has obtained approval for an additional \$38,117 in funds for this project from CALFED and USBR will amend USGS's agreement to add the funds in the first quarter of FY 2000.

4. **Project Title:** Bacterial Treatment of Selenium in the Panoche Drainage

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CALFED Recommended Level of Funding:	\$1,149,000
Funds Obligated Through September 30, 1999	\$1,149,000
Funds Expended Through September 30, 1999:	\$489,304

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**Funding provided to:** USBR agreement signed with CSUB on September 24, 1998

**Project Description:** The Algal-Bacterial Selenium Removal Demonstration Facility has been operating for a year in the Panoche Drainage District near Firebaugh. The facility consists of two identical systems in which algae are grown, harvested and then used as a bacterial substrate for selenium reduction from subsurface agricultural drainage water. Funding of this project will allow the continued operation of the facility for three years. Funding will be provided to the CSUB (Lawrence Berkeley Laboratory) for accomplishment of this task.

**Completion Date:** September 30, 2001

**Fourth Quarter Accomplishments:** The flow to the Mode 1 Algal-Bacterial Selenium Removal (ABSR) System was increased above design flows in order to determine the sensitivity of the system to reduced hydraulic residence time and substrate dosing. Weekly samples of the influent and effluent of each pond of the ABSR Facility have been collected and analyzed for the concentration of selenate, selenite, nitrate+nitrite nitrogen, and 13 other parameters.

Design and price data were gathered for various pieces of water clarification equipment to be used in the ABSR Facility scale-up design, as well as costs for plastic pond liners and paddle wheel materials.

A site tour was conducted for USGS personnel and researchers from the Biotechnology Education, Science, and Teaching Program of Lawrence Berkeley National Laboratory on July 14, 1999. A paper on the ABSR Technology was submitted to *California Agriculture*. The project website was brought on-line at "www-esd.lbl.gov/quinn/Grassland\_Bypass/RESEARCH/Panoche3.html."

5. **Project Title:** Evaluation of Selenium Sources, Levels and Consequences in the Delta

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CALFED Recommended Level of Funding:	\$1,627,117
Funds Obligated Through September 30, 1999	\$1,589,000
Funds Expended Through September 30, 1999:	\$928,662

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**Funding provided to:** USBR agreement signed with USGS on August 10, 1998

**Project Description:** This 3-year study will provide a quantitative description of the different sources of selenium concentrations in the Bay-Delta; a determination of how changes in sources may affect selenium tissue concentrations in primary consumers; a linkage of selenium concentrations in primary consumers to uptake by predators; and a direct determination of whether selenium affects reproduction and development in sturgeon. Further, a model will be developed which forecasts outcomes of alternative selenium remediation/restoration strategies and baseline monitoring data will be developed. This information will be summarized in a final report to CALFED.

**Completion Date:** June 30, 2001

**Fourth Quarter Accomplishments:** Analyses are continuing of the data collected during sampling activities in previous quarters. Monthly water sampling at Vernalis and Freeport continues to provide the basis for modeling of selenium concentrations.

The program is working on conceptual models for selenium sources, species absorption, transport and effect. This quarter USGS continued the design of a whole ecosystem food web experiment. This experiment compares selenium concentrations, feeding habits and selenium bioaccumulation experiments, among as complete a food web as possible, at two locations: a large estuarine location including Grizzly Bay and the head of San Pablo Bay; and Mildred's Island in the Delta.

**6. Project Title:** Integrated Pest Management in Suisun Bay Program

CALFED Recommended Level of Funding:	\$266,000
Funds Obligated Through September 30, 1999	\$266,000
Funds Expended Through September 30, 1999:	\$107,754

**Funding provided to:** USBR agreement signed with Central Contra Costa Sanitary District on September 9, 1998

**Project Description:** This project builds on an existing pilot project to educate the public and change their behavior regarding urban pesticide use to move toward the use of non-chemical pesticides (i.e., integrated pest management). This program, located in the Delta near Suisun Bay and contracted with the Central Contra Costa Sanitary District, seeks to change the behavior of the general community through public awareness of the effects of pesticides misuse with emphasis on nonchemical methods to keep pests at acceptable low levels.

**Completion Date:** August 31, 2001

**Fourth Quarter Accomplishments:** Seven "less-toxic gardening" workshops led by trained Master Gardeners were held this quarter to educate the public about less-toxic gardening techniques. CCCSD prepared a monitoring plan for review and acceptance by CALFED.

**7. Project Title:** Sand and Salt Creek Watershed Project

CALFED Recommended Level of Funding:	\$599,000
Funds Obligated Through September 30, 1999	\$599,000
Funds Expended Through September 30, 1999:	\$45,951

**Funding provided to:** USBR agreement signed with Colusa County RCD on June 24, 1998

**Project Description:** This watershed management project will: (1) develop a resource management plan that includes conservation practices, monitoring, education, water quality and water conservation management goals at 20 sites; (2) monitor six selected sites in order to determine effectiveness of the developed plan; (3) develop public/educational workshops and tours to show landowners how to implement the watershed management plans to reduce surface runoff containing pesticide residues and sediments; and (4) construct grade stabilization structures to decrease erosion within the watershed.

**Completion Date:** December 31, 1999

**Fourth Quarter Accomplishments:** During this quarter, the contractor began collection of baseline data for the management plan, surveyed potential project monitoring sites and selected six monitoring sites in order to determine effectiveness of the management plan once it is developed. In addition, staff attended training seminars for use in project management.





## SECTION G - INTRODUCED AND UNDESIRABLE SPECIES CONTROL

CALFED Recommended Level of Funding:	\$	1,402,233
Funds Obligated Through September 30, 1999:	\$	1,250,000
Funds Expended Through September 30, 1999:	\$	32,866

### 1. **Program Title:** Exotic Species Control Program (a.k.a: Non-native Invasive Species Program)

CALFED Recommended Level of Funding:	\$1,250,000
Funds Obligated Through September 30, 1999	\$1,250,000
Funds Expended Through September 30, 1999:	\$32,866

**Funding provided to:** USBR agreement signed with USFWS on August 13, 1998

**Program Description:** This program will identify and implement measures to prevent additional introduction of exotic, nonnative aquatic species by developing an overall strategy which seeks to control various sources of introductions such as ballast water and intentional introductions of exotic species. The program may also identify specific needs to control previously introduced species if experts can identify effective remedial control measures. USFWS will work with CALFED program staff to develop this program.

**Completion Date:** September 30, 2000

**Fourth Quarter Accomplishments:** A draft Strategic Plan and Implementation Plan have been submitted to CALFED for inclusion on the CALFED website to facilitate public review. These Plans have also been submitted to the Western Regional Panel on Aquatic Nuisance Species for review and USFWS is working to obtain further outside scientific and policy review. Coordination issues are continuing for specific non-native invasive species issues such as mitten crab, ballast water and giant salvinia.

In May, USFWS recommended seven directed projects to fund in support of this program. The seven projects totaling \$884,012 were approved in July and are further detailed below. Funding in the amount of \$365,988 remains available and uncommitted for additional projects and activities.

#### A. **Project Title:** Non-native Invasive Species Projects Under Negotiation

CALFED Recommended Level of Funding:	\$884,012
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**Description:** USFWS is negotiating agreements with seven recommended/approved project recipients as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Effects of Introduced Clams on the Food Supply of Bay-Delta Fishes	Pending	\$100,490	San Francisco State, Romberg Tiburon Center
Introduced Spartina Eradication Project	Pending	\$250,000	California Costal Conservancy
Non-native Invasive Species Advisory Council	Pending	\$50,000	USFWS
Practical Guidebook to Prevention Control for Nonnative Invasive Plants in Shallow Water Habitats of the Bay-Delta Ecosystem	Pending	\$76,750	SFEI
Purple Loosestrife Prevention, Detection, and Control in the Sacramento and San Joaquin Delta and Associated Hydrologic Units	10/30/99	\$201,306	State Department of Food & Agriculture
Reducing the Risk of Importation and Distribution of Nonnative Invasive Species Through Outreach and Education	Pending	\$105,466	UCD
Zebra Mussel Detection and Outreach Project	Pending	\$100,000	DWR
Total Under Negotiation		\$884,012	

2. **Project Title:** 1999 PSP Introduced and Undesirable Species Control Projects Under Negotiation

CALFED Recommended Level of Funding:	\$152,233
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**Funding provided to:** USBR

**Description:** Through the 1999 CALFED PSP, one project was selected and approved for this Topic Area. Negotiations and agreement preparations are underway with the project proponent as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
An Evaluation of the Potential Impacts of the Chinese Mitten Crab on the Benthic Community in the Delta	11/30/99	\$152,233	DWR
Total Under Negotiation		\$152,233	



## SECTION H - IMPROVED FISH MANAGEMENT AND HATCHERY OPERATIONS

CALFED Recommended Level of Funding:	\$	673,496
Funds Obligated Through September 30, 1999:	\$	625,000
Funds Expended Through September 30, 1999:	\$	127,584

1. **Project Title:** 1999 PSP Improved Fish Management and Hatchery Operations Projects Under Negotiation

CALFED Recommended Level of Funding:	\$38,996
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**Funding provided to:** USBR

**Description:** Through the 1999 CALFED PSP, one project was selected and approved for this Topic Area. Negotiations and agreement preparations are underway with the project proponent as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Health Monitoring of Hatchery and Natural Fall-run Chinook in the San Joaquin River	Pending	\$38,996	USFWS
Total Under Negotiation		\$38,996	

2. **Project Title:** Evaluation of Increasing Tagging Levels for Chinook Salmon and Steelhead and a Demonstration Project on Mass Marking (a.k.a.: Evaluation of Tagging Data)

CALFED Recommended Level of Funding:	\$634,500
Funds Obligated Through September 30, 1999	\$625,000
Funds Expended Through September 30, 1999:	\$127,584

**Funding provided to:** USBR agreement signed with Northwest Marine Technology, Inc., on August 20, 1998

**Project Description:** This project consists of two integrated components. The first component will evaluate existing coded wire tag and recovery data from the Central Valley, look at hatchery produced salmon contribution toward commercial and recreational harvest and develop parameters associated with constant fractional or mass marking programs for fish harvest. The first component will result in a series of reports provided to USBR by the consultants. The second component will demonstrate the feasibility of marking large numbers of fish for release into Central Valley waters.

Increasing the tagging levels will provide a much greater definition of juvenile salmon inland distribution, migration rates, growth rates and origin of fish captured. USBR will work with Northwest Marine Technology, Inc. and CDFG to accomplish the project goals.

**Completion Date:** December 31, 2000

**Fourth Quarter Accomplishments:** Task 1 of this agreement is to evaluate increasing tagging levels of chinook salmon and steelhead fish. The collection of historical information on juvenile fish releases and adult recovery has been accomplished. Evaluation reports were issued in August 1999.

Task 2 of this agreement is to mark and tag 5 million fish to demonstrate a new mass marking machine. The prototype marking machine has been completed and was tested in Northern Washington. However, this machine still lacks an automated fish sorter which is necessary to presort the juvenile fish. Development of prototype sorters is underway with the projected use of the machine to sort and tag 5 million fish during CY 2000.



## SECTION I- WATERSHED MANAGEMENT

CALFED Recommended Level of Funding:	\$	4,848,316
Funds Obligated Through September 30, 1999:	\$	4,243,408
Funds Expended Through September 30, 1999:	\$	445,235

### 1. **Program Title:** Watershed Restoration Planning and Implementation Program

CALFED Recommended Level of Funding:	\$2,031,663
Funds Obligated Through September 30, 1999	\$2,031,663
Funds Expended Through September 30, 1999:	\$34,638

**Funding provided to:** USBR agreement signed with EPA on August 25, 1998

**Program Description:** This program is designed to promote locally-led efforts to develop comprehensive watershed restoration plans for key tributaries of the Central Valley and Bay-Delta Watershed. This program will fund the development and implementation of restoration projects or plans by new or existing local watershed groups. To promote watershed stewardship throughout the ecosystem and to support an increased understanding of the linkages with the upper watershed, the geographic scope of this watershed program will include the upper watershed and the local watersheds below the Delta. Efforts under this program will be coordinated through the CALFED Watershed Management Program. An additional \$145,000 in funding for technical review of this program is included in the Technical Review and Quality Control Program under Section J. EPA signed an agreement with NFWF to provide project and contract administration services on the 14 projects approved by CALFED for funding through the 1998 PSP.

#### A. **Title:** 1998 PSP Watershed Restoration Planning and Implementation Projects under Negotiation

CALFED Recommended Level of Funding:	\$223,000
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**Description:** EPA provided draft materials for a the 1998 PSP issued by CALFED. This material included a written description of the types of proposals being solicited, the process to be used to develop proposals with project proponents and the criteria and the process to be used in evaluating the proposals. Further, EPA coordinated the evaluation of proposed projects and assisted in making funding recommendations to CALFED work groups for their consideration. Fourteen projects were selected and approved for a total of \$2,860,266. The Bay-Delta Ecosystem Restoration Fund is providing \$2,031,663 and the balance of \$828,603 is cost share funds made available by EPA from their appropriation.

**Fourth Quarter Accomplishments:** Two agreements were awarded this quarter for a total of \$287,000 bringing the total number of agreements awarded to 12 for a total of \$1,808,663. EPA and NFWF presented program progress to the BDAC Watershed Workgroup subcommittee. NFWF performed contract administration work on task order and deliverable development, accounts tracking, subcontract review and compliance with applicable regulations. Negotiations and agreement preparations are underway with the two remaining project proponents as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient (Project Proponent)
Cold Water Fisheries and Water Quality Element	Pending	147,000	City of San Jose Services Department
Lower Putah Creek Watershed Stewardship Program	Pending	76,000	Solano County Department of Environmental Management
<b>Total Under Negotiation</b>		<b>\$223,000</b>	

**B. Project Title:** Alhambra Creek Watershed CRMP Project

CALFED Recommended Level of Funding:	\$104,000
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**Funding provided to:** NFWF signed agreement with the Contra Costa RCD on April 8, 1999  
**Project Description:** This project will develop a watershed management plan using the Coordinated Resource Management Planning process. This will require local participation, consensus decision making and voluntary implementation of the plan. It is anticipated that Best Management Practices will be incorporated into the Watershed Management Plan.

**Completion Date:** April 30, 2001

**Fourth Quarter Accomplishments:** The developed lands and open lands subcommittees developed goals objectives and action items. A joint educational committee comprised of five local environmental groups is working on developing a program with teachers to provide existing supplemental watershed focused materials for inclusion in the curriculum. Staff is also developing a power point presentation for a Regional Water Quality Control Board brown bag lunch series. A stream walk has been planned to map the stream and its three primary reaches using a GPS unit.

**C. Project Title:** American River Integrated Watershed Stewardship Strategy

CALFED Recommended Level of Funding:	\$162,000
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**Funding provided to:** NFWF agreement signed with Placer County RCD on June 8, 1999

**Project Description:** This project will (1) compile biophysical, institutional, social, and economic data; (2) develop these data in a central GIS; (3) prepare an integrated study of

watershed functions; (4) prepare a Watershed Management Plan and Stewardship Strategy; and (5) implement two pilot projects with significant community involvement.

**Completion Date:** May 30, 2002

**Fourth Quarter Accomplishments:** The American River Watershed Group developed Draft Plan Objectives using outside funding. The input from Public Meetings, Agency Workshop and the review of relevant documents were used to modify the Draft Plan Objectives. The Placer County RCD met in three planning sessions with its major sub-contractors to develop the overall strategy to the Public Scoping phase.

**D. Project Title:** Battle Creek Watershed Stewardship

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CALFED Recommended Level of Funding:	\$107,000
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**Funding provided through:** NFWF agreement signed with the Battle Creek Watershed Conservancy on August 25, 1999

**Project Description:** The Battle Creek Watershed Conservancy will implement the Watershed Strategy, conduct direct ecosystem restoration through noxious weed abatement, develop Vegetation Management Plans to improve fuel loads for Lassen National Forest and willing landowners, develop specific plans for acquiring key conservation easements, and perform community outreach.

**Completion Date:** August 24, 2002

**Fourth Quarter Accomplishments:** Staff is participating in the Battle Creek Working Group, the USBR management team for the Battle Creek Salmon and Steelhead Restoration Project, and the USFWS re-evaluation program for Coleman National Fish Hatchery. Planning work for outreach activities has commenced for (1) the Battle Creek Watershed Conservancy Newsletter, (2) workshops for public school teachers, (3) Klamath River Information System/Battle Creek CD distribution and training, and (4) community meetings. Negotiations have begun with the Tehama County Fire Department for shaded fuel-break work.

**E. Project Title:** Cottonwood Creek Watershed Group Formation

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CALFED Recommended Level of Funding:	\$119,000
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**Funding provided to:** NFWF agreement signed with the Cottonwood Creek Watershed Group on May 11, 1999

**Project Description:** This project will support a watershed group comprised of local landowners, public land managers, resource managers and interested parties to address the entire watershed and develop a plan to evaluate and make recommendations for watershed stewardship. Specific watershed issues include timber harvest, land use, fire and fire suppression, erosion reducing oak woodland management, riparian zone maintenance and providing for sustained runoff patterns in the upper watershed area.

**Completion Date:** April 30, 2000

**Fourth Quarter Accomplishments:** The Watershed Coordinator was hired September 20, 1999. The office is now set-up and currently working on: (1) an RFP for mapping; (2) the listing of Shasta and Tehama County ownerships has been obtained; (3) the identification of Cottonwood Creek Watershed landowners has been initiated; and (4) stakeholder meetings continue to be held on a monthly basis.

**F. Project Title:** Local Watershed Stewardship: Steelhead Trout Plan

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CALFED Recommended Level of Funding:	\$38,000
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**Funding provided to:** NFWF signed agreement with the Friends of Corte Madera Creek Watershed on April 2, 1999

**Project Description:** The purpose of this project is to develop a steelhead trout recovery plan. The plan is one component of a comprehensive watershed plan to improve water quality, fishery resources and native vegetation and wildlife in the Corte Madera Creek Watershed. The plan will identify the factors limiting the steelhead trout population, formulate corrective actions and describe how to monitor the success of those actions once implemented.

**Completion Date:** October 1, 2000

**Fourth Quarter Accomplishments:** Review of historical information was substantially completed this quarter. Habitat typing and fish population surveys began in August and continued during September. Weekly thermograph readings continued throughout the summer. The Quality Assurance Project Plan is conditionally approved by EPA. The Advisory Committee met again in August. The next meeting will be held in early 2000 after the draft fish and geomorphological reports are distributed for review.

**G. Project Title:** Merced River Corridor Restoration Plan

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CALFED Recommended Level of Funding:	\$220,000
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**Funding provided to:** NFWF agreement signed with the Stillwater Sciences and Merced County Planning and Community Development Department on May 26, 1999

**Project Description:** The project will be implemented in three phases. Phase I, which is funded by USFWS's AFRP, established a Merced River Stakeholder Group and Technical Advisor Committee. Phase II which is being funded by this agreement, includes completing baseline geomorphic and ecological analyses and identifying opportunities and constraints for restoration in the Merced River corridor. In Phase III, which is not currently funded, input from the Stakeholder Group and Technical Advisory Committee and results from Phase II will be synthesized into an overall Restoration and Monitoring Plan.

**Completion Date:** May 23, 2001

**Fourth Quarter Accomplishments:** The Merced River Technical Advisory Committee (TAC) met for the first time on July 27, 1999. The Project Team drafted a study plan for the riparian and geomorphic analyses and presented it to the TAC for review. The Project Team completed



the majority of the study of social and institutional opportunities and constraints to restoration of the Merced corridor. Preparations for field work have also been completed, including two scoping trips, study site selection, field supply acquisition and some field training.

**H. Project Title:** Petaluma River Watershed Restoration Project

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CALFED Recommended Level of Funding:	\$162,000
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**Funding provided to:** NFWF agreement signed with the Southern Sonoma County RCD on May 13, 1999

**Project Description:** This project will produce a high visibility creek corridor enhancement, support 205(j) Petaluma River Watershed Enhancement Plan (1998) implementation, orchestrate watershed restoration, monitoring and assessment projects, assess watershed hydrology and geomorphology using the San Francisco Estuary Institute's methods (in GIS format), and integrate existing local monitoring and restoration efforts.

**Completion Date:** May 31, 2000

**Fourth Quarter Accomplishments:** Staff is developing "The Creek Care Guide." The Petaluma River Watershed Council has been formed. The project manager has met with many individuals and conservation groups. Contract and design for Lichau Creek bank stabilization and revegetation have been completed. Educational and outreach programs have been initiated, including "Adopt-a-Watershed." Restoration of Lynch Creek has been designed and contracted.

**I. Project Title:** Proposal to Develop Local Watershed Stewardship Plan for the Lower Mokelumne River

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CALFED Recommended Level of Funding:	\$118,000
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**Funding provided to:** NFWF signed agreement with the San Joaquin County RCD on April 8, 1999

**Project Description:** The overall objective of this three year watershed program is to: (1) develop a plan for the Lower Mokelumne River Watershed Stewardship Program through a community-based ecosystem management approach which strives to reconcile livable communities with ecological integrity; (2) support the Lodi-Woodbridge Winegrape Commission in developing and implementing voluntary Environmental Farm Plans; and (3) expand biological monitoring within the lower Mokelumne watershed to include neotropical land birds.

**Completion Date:** April 1, 2000

**Fourth Quarter Accomplishments:** The first public input workshop for the Lower Mokelumne River Watershed Stewardship Plan was held on September 10<sup>th</sup>. It was very well attended; and participants ranked watershed priorities. The Lodi-Woodbridge Winegrape Commission has completed approximately 80% of the Integrated Farm Plan. Preparation of the education modules has commenced. Neotropical Migratory Bird Field Monitoring for the summer was completed.

**J. Project Title:** South Yuba River Coordinated Watershed Management Plan

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CALFED Recommended Level of Funding:	\$193,000
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**Funding provided to:** NFWF agreement signed with the California Department of Parks and Recreation on May 19, 1999

**Project Description:** A multi-stakeholder South Yuba River Stewardship Council working with public and private land managing agencies will produce the South Yuba River Coordinated Watershed Management Plan. The goals of this project are to conduct comprehensive survey research regarding recreation uses, public-private use conflicts, and establish a South Yuba River Stewardship Council.

**Completion Date:** May 31, 2002

**Fourth Quarter Accomplishments:** Staff held three agency meetings this quarter and finalized contract specifications for a project manager and survey contractor. The two requirements have been advertised and contract award is anticipated by November 12<sup>th</sup>. This project has been expending contributed goods and services to date.

**K. Project Title:** Sulfur Creek Coordinated Resource Management Planning Group(CRMP)

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CALFED Recommended Level of Funding:	\$20,000
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**Funding provided to:** NFWF signed agreement with the Sacramento Watershed Action Group on May 13, 1999

**Project Description:** The Sulphur Creek CRMP coordinates volunteers, provides community education, facilitates public participation in the CRMP process, provides training opportunities, pursues land acquisitions, and makes recommendation to the City of Redding General Plan. Under this agreement, the Sulphur Creek CRMP will distribute the Watershed Analysis, develop community-based restoration objectives, pursue funding to implement projects identified in the Watershed Analysis, and enhance public awareness and education in fisheries and watershed issues.

**Completion Date:** May 10, 2001

**Fourth Quarter Accomplishments:** Staff have continued monthly meetings, presented a slide show on Sulphur Creek and the findings of the Watershed Analysis, solicited support for watershed restoration, and obtained offers of assistance from other agencies to implement projects outlined in the Watershed Analysis.

**L. Project Title:** Union School Slough Watershed Improvement Project

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CALFED Recommended Level of Funding:	\$385,663
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**Funding provided to:** NFWF agreement signed with the National Audubon Society, California Chapter on May 25, 1999

**Project Description:** The Yolo RCD together with Audubon-CA will enact portions of the 1996 Willow Slough Integrated Resources Management Plan and develop a landowner stewardship group and vegetation management service. Conservation activities include: (1) restoring upper watershed riparian areas and rangelands; (2) revegetating canals and drainage ditches; (3) constructing wildlife and tailwater ponds; and (4) restoring riparian function to the lower slough.

**Completion Date:** May 14, 2002

**Fourth Quarter Accomplishments:** Staff set-up a tour of constructed conservation projects and held meetings with the Yolo RCD to initiate streamlined permitting process for conservation activities under Willow Slough Management Plan. They also organized the “Prescribed Fire for Grassland Restoration and Vegetation Management” workshop to be held October 20-21, conducted prescribed burns on 2 landowner properties, and coordinated with landowners and preformed numerable preparatory tasks towards tailwater pond construction, irrigation canal revegetation, riparian restoration.

**M. Project Title:** Watershed Restoration Strategy for the Yolo Bypass

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CALFED Recommended Level of Funding:	\$180,000
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**Funding provided to:** NFWF agreement signed with the Yolo Basin Foundation on July 12, 1999

**Project Description:** The Yolo Basin Foundation’s Management Strategy project for the Yolo Bypass is a stake-holder-driven process that will develop a long-term strategy for managing fish and wildlife habitat while maintaining agricultural economic viability and flood conveyance capacity in the Yolo Bypass in Yolo County, California. This project will produce a final report which will outline possibilities for a wide mosaic of agricultural practices, and maintenance of land in agricultural production.

**Completion Date:** June 29, 2000

**Fourth Quarter Accomplishments:** The project team continued to identify and meet with stakeholders to inform stakeholders of the project and to receive input to help guide the project and define goals. The project team began researching funding mechanisms for implementing habitat creation, habitat conservation easements, and wildlife-friendly agricultural practices and continued compiling a library of existing resources, including maps, studies, and other information. Additionally, the project team prepared for a meeting of regional avian specialists which will take place in October.

**2. Project Title:** 1999 PSP Watershed Management Projects Under Negotiation

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CALFED Recommended Level of Funding:	\$559,908
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**Funding provided to:** USBR

**Description:** Through the 1999 CALFED PSP, two projects were selected and approved for this Topic Area. Negotiations and agreement preparations are underway with the project proponents as follows:

Project	Expected Award Date	Recommended Funding Level	Funding Recipient
Biological Ag Systems in Cotton (BASIC)–Reducing Synthetic Pesticides and Fertilizers in the Northern San Joaquin Valley	Pending	\$473,800	Sustainable Cotton Project
Duncan/Long Canyon Paired-Watershed Project	12/24/99	\$86,108	Placer County Water Agency
Total Under Negotiation		\$559,908	

### 3. **Project Title:** Butte Creek Watershed Restoration Implementation

CALFED Recommended Level of Funding:	\$302,745
Funds Obligated Through September 30, 1999	\$302,745
Funds Expended Through September 30, 1999:	\$255,882

**Funding provided to:** USBR agreement signed with USFWS on September 13, 1998

**Project Description:** This is a watershed planning, outreach and restoration project to be implemented by the Butte Creek Watershed Conservancy. This project will include watershed planning, an education program, an evaluation of the geomorphology of upper Butte Creek canyon and a road survey in the watershed to identify erosion control sites and potential future erosion control needs. USFWS is working with UCC and the Butte Creek Watershed Conservancy (BCWC) to develop this project.

**Completion Date:** September 30, 1999

**Fourth Quarter Accomplishments:** The Assistant Watershed Coordinator continues to perform a full range of office support functions including: basic clerical duties, database maintenance, phone reception, transcription, and mailings. Under the direction and supervision of the Watershed Coordinator, the Assistant Coordinator has facilitated the ongoing development of an Existing Conditions Report and Watershed Management Strategy. The Assistant has coordinated regular monthly Board of Directors meetings and bimonthly Watershed Advisory Committee meetings. Currently, the Assistant Coordinator is working to produce a quarterly Conservancy newsletter and is planning the BCWC Annual Silent Auction Benefit.

For the last several months project staff has been collecting field data in the canyon portion of the study area. Landowner cooperation in this area has facilitated easy entrance to the creek for cross sections, long profiles and pebble counts. Historic information (maps, air photos, CalTrans “bridge books”, and other sources) is being used through this process to place current creek conditions in

context. Access in the valley section of Butte Creek has been a little difficult, but appears to be running smoothly now. Project staff has generally finalized the collection of historical information for Kondolf and Williams review. Staff has begun to transfer cross-sections developed in the field to Excel spreadsheets. Staff has also completed the task of a photo mosaic of the section of Butte Creek from Hwy 162 up to Skyway. All of this information will be synthesized by the consultant team and project staff into a report that will include recommendations for restoration actions.

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Project staff continued collecting existing data including, maps, air photos, and relevant reports. Project staff had several in-field training sessions with the subcontractor, Meadowbrook Associates. The survey data sheet was field tested and minor revisions were made. The Project staff met with the land manager for the cooperating landowner, Sierra Pacific Industries along with Ken Cowley of Meadowbrook to discuss surveying protocol. Work is continuing on the GIS base map. A highly accurate GPS unit will be used to field check data.

#### 4. **Project Title:** Floodplain Easements - Lower Tuolumne and San Joaquin Rivers

CALFED Recommended Level of Funding:	\$1,545,000
Funds Obligated Through September 30, 1999	\$1,500,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with NRCS on July 27, 1999

**Project Description:** CALFED is being given the unique opportunity to participate in the USDA Emergency Watershed Protection Program which will allow significant progress toward ecosystem restoration goals while achieving multiple CALFED benefits. This program will convert approximately 1,200 acres of previously cultivated farmland to seasonal wetlands and shaded riverine aquatic habitat through conservation easements. This land use change will provide benefits to important terrestrial and aquatic species including improved habitat, reduced water temperature and stream velocity and improved food resources for migrating and rearing salmonids. In addition, this program will provide important flood control benefits including reduced public risk due to flood

damages and increased protection of lives and property. NRCS has committed \$2,814,000 of appropriated funds to this project in addition to the Bay-Delta Act funds.

**Completion Date:** June 30, 2000

**Fourth Quarter Accomplishments:** NRCS issued Option Agreement to Purchase Offers (Offers) to 9 landowners; 3 declined and NRCS issued Offers to 4 more landowners on the waiting list in the same stretch of the river. A total of 10 landowners accepted and have signed Option Agreement to Purchase documents. Surveys and appraisals have been completed and work is ongoing to close on the 10 easements (totaling 1,073 acres) in the next FY quarter. Restoration work will commence after the easements have been secured.

5. **Project Title:** Improvement/Sediment Stabilization on Deer, Mill and Antelope Creeks (Lassen National Forest)

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CALFED Recommended Level of Funding:	\$371,000
Funds Obligated Through September 30, 1999	\$371,000
Funds Expended Through September 30, 1999:	\$147,013

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**Funding provided to:** USBR agreement signed with Forest Service on March 16, 1998

**Project Description:** There are three components of this project: (1) implementation of erosion control measures; (2) planning for future road related erosion control measures; and (3) identification of private land acquisition/exchange of areas with high erosion potential. The objective of this project is to reduce the generation of fine sediment from upland, riparian and road related sources in three watersheds utilized by spring-run salmon and steelhead in Lassen National Forest. Item one described above actually involves the treatment of approximately 20 landings and 3 miles of road that will be removed and revegetated.

**Completion Date:** December 31, 2000

**Fourth Quarter Accomplishments:** Consultation with NMFS has been completed and projects have been approved for implementation. The Forest Service has completed a biological assessment and NMFS has rendered a non-jeopardy opinion. The engineering designs are complete for the erosion control measures. A refined "restoration site" layer was completed for the GIS portion of the project. The Road Management Guide is currently under peer review. Extensive archaeological reconnaissance was completed for this quarter.

6. **Project Title:** Inventory of Forest Road Systems at Cat Creek Watershed

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CALFED Recommended Level of Funding:	\$38,000
Funds Obligated Through September 30, 1999	\$38,000
Funds Expended Through September 30, 1999:	\$7,702

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**Funding provided to:** USBR agreement signed with the Forest Service on August 6, 1998

**Project Description:** An interdisciplinary team will develop and review the forest road system within the Cat Creek watershed in El Dorado County. The objective is to provide decision makers with recommendations about which roads to repair, relocate, gate, or decommission. The process developed by this team would be used to review the entire forest road system within the Cosumnes River Basin in the El Dorado National Forest. Roads are the principal cause of accelerated erosion in forests in the western United States; this project will ultimately improve riparian resources and aquatic habitat by removing sources of sedimentation.

**Completion Date:** September 30, 1999

**Fourth Quarter Accomplishments:** The Forest Service's interdisciplinary team has completed a preliminary process for assessing road risks and values for forest resources. The Analysis Process is currently being field tested and will be presented to the public in early January 2000. The Forest Service is requesting a nine-month extension to the term of the agreement due to unforeseen delays in fully developing the GIS database.



## SECTION J - MONITORING, PERMIT COORDINATION AND OTHER SPECIAL SUPPORT PROGRAMS

CALFED Recommended Level of Funding:	\$	9,924,600
Funds Obligated Through September 30, 1999:	\$	8,330,672
Funds Expended Through September 30, 1999:	\$	3,198,462

### 1. Program Title: Bay-Delta Education Program

CALFED Recommended Level of Funding:	\$788,600
Funds Obligated Through September 30, 1999	\$385,993
Funds Expended Through September 30, 1999:	\$181,741

#### Funding provided to: USBR

**Description:** Building public understanding of efforts to restore the Bay-Delta ecosystem is critical to the success of the CALFED program. This project is a broad based education outreach program targeted toward citizens, journalists, decision makers, teachers and students to increase their understanding of the CALFED Bay-Delta Program. Many of the concepts in habitat restoration are new and innovative and there is a need to increase public understanding to increase acceptance and facilitate implementation. This program will include a number of agreements that provide support for increased public understanding through educational workshops, tours of the Bay-Delta region for journalists, field trips for adults and students, slide show productions for the public, regional ecology flier development and distribution and conferences. The CALFED PSP, competitive process, has been utilized to identify projects for funding under this program.

**Fourth Quarter Accomplishments:** All education projects identified from the 1998 PSP have been awarded and individual accomplishments are described below.

#### A. Project Title: 1999 PSP Bay-Delta Education Projects under Negotiation

CALFED Recommended Level of Funding:	\$368,600
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**Description:** Through the 1999 CALFED PSP, eight projects were selected and approved for this Program. Negotiations and agreement preparations are underway with the project proponents as follows:

1999 PSP Projects	Expected Award Date	Recommended Funding Level	Funding Recipient
1999/2000 Bay-Delta Education Project	12/29/99	\$33,269	WED



<b>1999 PSP Projects</b>	<b>Expected Award Date</b>	<b>Recommended Funding Level</b>	<b>Funding Recipient</b>
Bay-Delta Traveling Film Festival and Exhibit	12/10/99	\$51,500	Independent Documentary Group
Estuary Action Challenge Environmental Education Project	12/31/99	\$51,500	Earth Island Institute
River Studies Center Exhibits and Projects	12/17/99	\$70,467	San Joaquin River Parkway & Conservation Trust
Sacramento River Discovery Center	Pending	\$39,552	Sacramento River Discovery Center
The Learning Watershed Project	12/24/99	\$56,907	American River Watershed Institute
Water Challenge 2010 Exhibit, Phases III & IV	12/10/99	\$52,015	COE
Watershed Educational Training	10/26/99	\$13,390	Colusa County RCD
<b>Total Under Negotiations</b>		<b>\$368,600</b>	

Funding in the amount of \$34,007 remains available and uncommitted for additional education program projects and activities.

**A. Project Title:** Bay-Delta Environmental Restoration Education Program

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CALFED Recommended Level of Funding:	\$40,000
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**Funding provided to:** USBR agreement signed with WED on March 8, 1999

**Project Description:** This project consists of three public education components to help the general public better understand the dynamics of the Bay-Delta and the CALFED Bay-Delta program. These components include developing two educational slide cards for young children, conducting a Bay-Delta tour for writers and journalists and conducting six workshops for secondary and community college educators.

**Completion Date:** December 31, 2000

**Fourth Quarter Accomplishments:** WED completed the two slide cards, entitled “The Salmon Story” and “Unwelcome Visitors.” One thousand complimentary copies of each slide card were distributed to organizations and agencies that work with these issues and have mechanisms for distributing the slide cards to the public. WED will conduct four workshops for secondary educators and two workshops for community college educators. The workshops will focus on wetlands, watershed education and water resource management. The first workshop is scheduled for October 10<sup>th</sup>, to be held at the California Science Teachers Association meeting. The tour

for the media was held on May 15, 1999 and 23 reporters were taken on a guided tour of the Bay-Delta with commentary and narration from representatives of the many stakeholder groups. Topics discussed on the tour include soil subsidence, salinity, drinking water quality and the competing needs for water.

**B. Project Title:** The Butte Creek Watershed Educational Workshops and Field Tours Series

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CALFED Recommended Level of Funding:	\$33,000
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**Funding provided to:** USBR agreement signed with CSUC on March 15, 1999

**Project Description:** CSUC will develop a series of 13 workshops and field tours designed to educate the public on watershed issues related to Butte Creek to increase the understanding of the problems facing the watershed. This will be accomplished by multimedia presentations, speakers and field tours. Field tours will include sites to increase the participants' understanding of watershed ecology, geology and habitat, as well as the effects of timber harvesting, grazing, road construction and use, reservoir creation, hydroelectric generation and levee development and maintenance.

**Completion Date:** December 31, 2001

**Fourth Quarter Accomplishments:** An advisory committee has been established to plan and coordinate the workshops and field tour series. A newsletter announcing the series and the initial workshop/welcome reception has been mailed to over 2,000 individuals and organizations. Public service announcements have been sent to local media to advertise this event. The initial workshop/welcome reception was held on July 23, 1999; and over 100 local, state and federal watershed representatives attended. The History Presentation (workshop #1) was held September 7, 1999, and 37 people attended.

**C. Project Title:** Discover the Flyway

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CALFED Recommended Level of Funding:	\$49,000
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**Funding provided to:** USBR agreement signed with Yolo Basin Foundation on April 1, 1999

**Project Description:** In each year of this program 75 teachers, instructing approximately 2,000 students, will gain the skills and knowledge necessary to incorporate wetland curricula into their annual lesson plans. Teachers will be provided workbooks which will be resource material for planning future wetland field trips. This will involve about 40 field trips involving approximately 300 to 400 parents and will generate 120 volunteer service hours. During the field trips, native plant seedlings will be planted in the Yolo Basin to support restoration efforts and to model active involvement in restoration activities for field trip participants.

**Completion Date:** December 31, 2001

**Fourth Quarter Accomplishments:** During this quarter the Discover the Flyway program updated and published a teacher workbook, organized registration for four days of teacher

workshops and completed training for 68 teachers. Currently scheduling field trips for 1999/2000 school year and arranging for native grass seedlings to be planted this Fall.

**D. Project Title:** Environmental Agriculture Conferences and Field Tours

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CALFED Recommended Level of Funding:	\$28,000
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**Funding provided to:** USBR agreement with Committee for Sustainable Agriculture signed on February 25, 1999

**Project Description:** The Committee for Sustainable Agriculture will present two 2-day conferences on current agricultural best management practices focusing on the following topic areas: soil quality and health improvement; topsoil erosion and loss reduction; agriculturally induced sediment mitigation; pesticide, herbicide and fertilizer runoff reduction; waterway nitrate and ammonia impact reduction; and wildlife habitat diversity conservation and creation.

**Project Completed:** June 30, 1999 – The two conferences, one entitled “Soil Fertility and Pest Management” and the other “Livestock and Dairy” were held in the third quarter. Approximately 175 people participated in these two events which included field tours to better describe and demonstrate techniques and methods discussed during the conferences.

**E. Project Title:** Sacramento River Headwaters to the Ocean, Public Information and Education

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CALFED Recommended Level of Funding:	\$49,640
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**Funding provided to:** USBR agreement signed with Sacramento River Discovery Center (SRDC) on April 1, 1999

**Project Description:** The SRDC will provide educational information and opportunities in three distinct areas. First, SRDC will expand its high school academy and adult volunteer training program focusing on documentation of bird communities and habitat analysis along the Sacramento River riparian corridor. Second, SRDC will develop a native grass plot for evaluation and propagation purposes to provide plants for revegetation sites in the watershed. Third, SRDC will enhance public involvement by providing access to a 2-acre, native/drought-tolerant plant garden through garden plant propagation, identification, classification and mapping by students and volunteers.

**Completion Date:** September 30, 2001

**Fourth Quarter Accomplishments:** Expansion of the bird monitoring and documentation program continued during the fourth quarter, with additional student and adult volunteers working on documentation of bird communities and habitat. The grass plot has been planted and continues to be documented for growth monitoring. In addition, the garden has been expanded with over 1,000 native plants propagated and sold. The program continues to recruit and train high school volunteers, develop educational materials and provide K-12 outreach initiatives.

**F. Project Title:** San Joaquin Valley's "Salmonids in the Classroom" Program Enhancements

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CALFED Recommended Level of Funding:	\$3,000
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**Funding provided to:** USBR agreement signed with CDFG on April 23, 1999

**Project Description:** This CDFG interdisciplinary classroom (grade K-12) program was started 10 years ago in the San Joaquin Valley to teach students on an ongoing basis about the life cycles of salmon and steelhead and the ecosystems these fish function best in. The program reached over 100 teachers and 7,200 students during the 1998-99 academic year. The Bay-Delta funding will be utilized to translate, reproduce and distribute six student activity and reference pages from the current program curriculum into four more languages -- Spanish, Hmong, Lao and Khmer -- which are most commonly spoken languages by limited-English speaking students in the Central Valley.

**Completion Date:** October 30, 1999

**Fourth Quarter Accomplishments:** Contracted translation services are complete and master copies of the documents have been produced. Reproduction and distribution will occur in the first quarter of the fiscal year 2000.

**G. Project Title:** Traveling Film Festival/Heron Booth Video Archive

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CALFED Recommended Level of Funding:	\$54,000
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**Funding provided to:** USBR agreement signed with Independent Documentary Group February 22, 1999

**Project Description:** This project will produce and publicize a major six-film environmental festival/exhibit highlighting the Bay-Delta environment at San Francisco's new main library. The premiere will involve screening three films each on two separate days with accompanying speakers introducing/addressing the issues presented. Subsequent screenings/displays will be arranged throughout the Bay Area both before and after the official premiere at the main library.

**Project Completed:** September 30, 1999 -- Sneak preview screenings were held at the following three events: Bay Area Environmental Education Resource Fair, North Bay Flyway Festival and the Resources in Environmental Education Fair. The premiere screenings were held on March 20 and 27 and both the preview and premiere screenings were positively received by audiences. An exhibit has been created and installed in the Wallace Stegner Environmental Center of the San Francisco Library for display from April 1 to July 31, 1999. In addition, nine post premiere showings have occurred throughout the Bay Area, providing education opportunities in seven of nine Bay Area counties.

#### H. **Project Title:** Tuolumne River Natural Resources Program

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CALFED Recommended Level of Funding:	\$55,255
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**Funding provided to:** USBR agreement signed with City of Modesto on May 3, 1999

**Project Description:** The project addresses the riparian habitat and ecosystems of Tuolumne river by increasing public awareness of local habitat issues and increasing educational opportunities among youth and adults. The project will focus upon individuals residing near the extended river area in Stanislaus County. Specifically, the project has three components, which are the planning and presentation of 55 educational workshops, 12 educational field trips and 3 overnight camping experiences, for both youth and adults.

**Completion Date:** December 31, 2001

**Fourth Quarter Accomplishments:** Twelve schools were solicited and are now participating in the program. The Great Valley Museum and Modesto Recycling have purchased materials and supplies to accompany and enhance workshop presentations that are scheduled to start in November 1999. Evaluation and monitoring tools are being designed to gauge the effectiveness of the program.

#### I. **Project Title:** Water Challenge 2010

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CALFED Recommended Level of Funding:	\$64,500
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**Funding provided to:** USBR agreement with COE on March 4, 1999

**Project Description:** This project will result in the design and construction of an interactive, hands-on exhibit that will travel to venues through California to provide a fast, effective and enticing way for people to grasp the essential issues behind Bay-Delta ecosystem restoration and other aspects of the CALFED mission. The exhibit will allow visitors to personally manage Sacramento-San Joaquin Delta water for ecosystem restoration and other beneficial uses. Visitors will be challenged to try their hand at apportioning water flowing from a huge tank (representing the total amount of water flowing from the Sierras into the Bay-Delta watershed) into a series of three smaller tanks (representing the water needs of fish and wildlife, cities and industry and agriculture/food production). As they make their water allocation decisions, visitors will receive immediate feedback on the consequences of their actions via video monitors that will be built into the exhibit.

**Completion Date:** December 31, 1999

**Fourth Quarter Accomplishments:** Technical research has been completed on the exhibit design, engineering and content; and a scope of work was developed to solicit for an RFP. Contract award is anticipated in the first quarter of FY 2000.

J. **Project Title:** Water Hyacinth Education Program

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CALFED Recommended Level of Funding:	\$9,598
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**Funding provided to:** USBR agreement signed with Sacramento Regional County Sanitation District (SRCSD) on April 23, 1999

**Project Description:** This project will distribute educational materials to Delta residents to assist in the long-term control of hyacinth growth in the Delta region. The project will distribute informational flyers through local marinas, boat retailers, bait shops and government agencies to prevent introduction/ reintroduction of hyacinth to state water ways and reservoirs. In addition, the SRCSD will work with local nurseries to discourage the production and sale of hyacinth for landscape ponds.

**Completion Date:** December 31, 2001

**Fourth Quarter Accomplishments:** Research and development of an education flyer by SRCSD staff is complete and the flyer has been printed. Educational work with marinas, boat retailers, bait shops, government agencies and nurseries has commenced.

2. **Program Title:** CALFED Special Support Programs

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CALFED Recommended Level of Funding:	\$1,751,000
Funds Obligated Through September 30, 1999	\$1,217,700
Funds Expended Through September 30, 1999:	\$0

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**Funding provided to:** USBR to CALFED Bay-Delta Program based on agreement signed May 17, 1995

**Project Description:** This program has four main components, each of which is identified and described separately.

A. **Project Title:** The Development of a Geographic Information System Program.

**Project Description:** The primary goal of the GIS effort is to provide access to critical geospatial databases to the primary ERPP actions and evaluation of potential impacts, including effects of proposed CALFED actions on sensitive species.

**Fourth Quarter Accomplishments:** A prototype mapserver is under development at CSUD to provide web-accessible geographic information about Ecosystem Restoration projects funded by the CALFED Bay-Delta Program. Interagency GIS coordination and geospatial data-sharing continue through the CALFED GIS Coordination Workgroup and related work teams.

B. **Project Title:** The Levee System Reliability Program Related to Suisun Marsh Levees.

**Description:** CALFED is in the process of developing information on the costs, benefits and linkages to CALFED objectives of including the Suisun Marsh's 230 miles of exterior levees in CALFED's Levee System Integrity Program.

**Fourth Quarter Accomplishments:** The Suisun Marsh Levee Investigation Team continues to progress in developing information on costs, benefits, and linkages to CALFED objectives of including Suisun Marsh levees in the CALFED Levee Program. Preliminary modeling to quantify potential water quality benefits to the CALFED Program has been completed and higher-dimensional verification modeling is currently underway.

**C. Project Title:** The Water Quality Program.

**Project Description:** The CALFED Water Quality Program strives to address and reduce contaminant effects on the Bay-Delta ecosystem. The Bay-Delta ecosystem and any restored wetlands constructed by the CALFED Ecosystem Restoration Program are affected by the Bay-Delta water quality. Toxicity of surface waters may reduce the productivity of the wetlands or eliminate portions of the food chain. Toxicity reduction is a goal of the ERPP Strategic Plan.

**Fourth Quarter Accomplishments:** Since the release of the revised PEIS/EIR, the Water Quality Program has been planning the early implementation phase for the South Delta Improvements and identifying an interim governing process. Four water quality action areas have been identified as priority actions as part of the South Delta Improvements. They include: (1) Low dissolved oxygen solution alternatives in the San Joaquin River, (2) Improved source water quality for Rock Slough intake, (3) Salinity/selenium drainage management measures for the San Joaquin River, and (4) Assessment of sources and magnitudes of loading of constituents of concern for drinking water. Four Work Groups have been formed to address each of these action areas. These Work Groups have been meeting to identify feasible projects or studies as well as helping to develop an implementation plan to begin the process of implementation.

The Water Quality Program has also been working towards developing the Delta Drinking Water Council, a subcommittee of BDAC, and a part of the interim governing structure. The mission of the Council is to advise the CALFED Bay-Delta Program and the CALFED Policy Group through BDAC on necessary adaptations to the CALFED Drinking Water Improvement Strategy to achieve CALFED's drinking water objectives.

**D. Project Title:** The Water Transfer Program related to Transfers for Environmental Purposes.

**Project Description:** The program will focus on implementation of water use efficiency measures. Several of the specific tasks requiring completion prior to final Programmatic EIS/EIR, as identified by the CALFED Water Use Efficiency Program, relate to the linkage between conservation and ecosystem health. Additionally, the program is working with CALFED agencies to develop assurances for wildlife refuge water management. Also included within this program are the efforts underway in the Water Transfer Program to develop a framework of actions, policies and processes that will affect, among other things, the transfer of water for instream flows. CALFED is working to resolve issues such as instream flow transfer tracking, environmental protection in source areas and rules and guidelines for environmental water transfers.

**Fourth Quarter Accomplishments:** The CALFED Transfer Agency Group continues to meet regularly to develop workplans to resolve remaining issues, such as (1) establishing consistent

reservoir refill requirements, and (2) establishing impact closure requirements. In addition, a special team of CALFED, USBR, and DWR staff are working to develop a more efficient water transfer application process. This work has included interviews with agency personnel in USBR offices throughout the state who are primary reviewers of CVP-related water transfer applications. During the first quarter of fiscal year 2000, an initial version of a computer-based interactive application system will be developed.

Refinement of the Water Use Efficiency Program element continues with the development of agricultural, urban and water recycling components. Work on the agricultural component is focusing on the development of quantifiable objectives. Draft targeted benefits, which are the foundation of these quantifiable objectives, have been developed for the CALFED Ecosystem and Water Quality Program objectives. On September 3<sup>rd</sup>, CALFED staff and consultants made a presentation to the Northern California Water Association manager's group. Local reaction to the program was positive, and a tentative agreement was obtained to cooperate and to share data. Work over the next months will continue to define the quantifiable objectives with local technical experts.

An informal group of urban and environmental stakeholders have drafted initial priorities for urban Best Management Practices (BMPs), based on their potential to help CALFED meet water quantity, quality and flow objectives in various regions. Work over the next months will focus on completion of CALFED's urban conservation certification proposal and drafting urban and recycling incentive plans.

### 3. **Project Title:** Comprehensive Monitoring Assessments and Research Program (CMARP)

CALFED Recommended Level of Funding:	\$1,447,000
Funds Obligated Through September 30, 1999	\$1,378,823
Funds Expended Through September 30, 1999:	\$1,106,572

**Funding provided through:** USBR to USFWS, USGS and CALFED Bay-Delta Program on September 21, 1998

**Project Description:** Adaptive management is essential to implementation of the CALFED Bay-Delta Program. Because knowledge about how the ecosystem functions is incomplete, monitoring, focused research, and staged implementation based on information gained are all central to the process. CMARP is being developed to meet these needs. CMARP will help provide the information and scientific interpretations necessary for program implementation and for the public to judge the Program's success. CMARP will provide information on all of the CALFED Program elements, and will contribute to the design of any mitigation efforts.

CMARP will include a structure and process for integrated data management, data analysis and reporting. Monitoring elements for near-term ecosystem restoration need to be integrated with



CMARP so that restoration proposals contain monitoring elements to determine whether stated objectives have been met and to provide guidance for assessing future restoration needs. This special support program will fund a portion of a system which does the following: reviews monitoring, assessment and reporting plans prior to implementation; standardizes data collection methodology, format and storage; and reviews, evaluates and circulates results to all interested parties.

**Fourth Quarter Accomplishments:** Much of the CMARP work in the fourth quarter has focused on the recommendations identified in CALFED CMARP's March 10, 1999, report, titled "Recommendations for the Implementation and Continued Refinement of a Comprehensive Monitoring, Assessment and Research Program." Specifically, development of "white papers" in partnership with the Ecosystem Restoration Program are underway. In cooperation with the Water Quality Program, a drinking water workshop was held in Sacramento and proceedings have been drafted. A draft strategy for research, monitoring and information assessment has been developed for some CALFED Delta actions, and a report discussing a base monitoring program that addresses CALFED'S long-term monitoring needs is being developed.

#### 4. **Project Title:** Coordinated Permitting

CALFED Recommended Level of Funding:	\$482,000
Funds Obligated Through September 30, 1999	\$435,971
Funds Expended Through September 30, 1999:	\$96,778

**Funding provided through:** USBR to CALFED Bay-Delta Program based on agreement signed May 17, 1995

**Project Description:** Facilitation of timely review and necessary action on permits will be required for implementation of near-term ecosystem restoration projects. This effort will also lay the groundwork for a coordinated approach on permit coordination for the eventual implementation of the CALFED Bay-Delta Program.

**Fourth Quarter Accomplishments:** A recommended strategy for CALFED permit compliance was completed and presented to decision makers. Additional research on Stage 1A actions was initiated, aimed at individual project permit strategies for the first stage 1 projects to be funded. Efforts toward developing a consolidated permit information form were begun. An implementation outline for the permit compliance strategy was developed based on Stage 1 research.

#### 5. **Project Title:** Development of a Watershed Management Program

CALFED Recommended Level of Funding:	\$394,000
Funds Obligated Through September 30, 1999	\$413,323
Funds Expended Through September 30, 1999:	\$220,482

**Funding provided through:** USBR to CALFED Bay-Delta Program based on agreement signed on May 17, 1995

**Project Description:** This program will provide financial and technical assistance to local watershed efforts that benefit the Bay-Delta system. Watershed actions can improve water supply reliability, maintain levee integrity and improve water quality. The Program will also facilitate and improve coordination and assistance among government agencies and other organizations and local watershed groups, support education and outreach at the local level, develop watershed monitoring and assessment protocols consistent with CALFED, and identify the watershed functions and processes that are relevant to the CALFED goals and objectives.

**Fourth Quarter Accomplishments:** Task 1, release of revised Watershed Program Plan, was completed in the third quarter as an appendix to the recently issued Revised Draft EIS/EIR. Under Task 2, CALFED provided staff support for, and conducted monthly meetings of, the Interagency Watershed Advising Team (IWAT). The purpose of the meetings was to assist CALFED with refinement of their Watershed Program's Implementation Strategy, including program priority setting and decision-making processes. CALFED also conducted three stakeholder meetings during this reporting period. These meetings were attended by a variety of stakeholders from throughout the Bay-Delta region and its watersheds. Under Task 3, CALFED continued developing the Watershed Program Implementation Strategy. Emphasis this quarter was placed on establishing program priority setting and decision-making processes.

**6. Project Title:** Ecosystem Restoration and Planning

CALFED Recommended Level of Funding:	\$1,200,000
Funds Obligated Through September 30, 1999	\$1,078,412
Funds Expended Through September 30, 1999:	\$9,810

**Funding provided to:** USBR to CALFED Bay-Delta Program based on agreement signed on May 17, 1995

**Project Description:** The goal of the ERP is to improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species. Improvements in ecosystem health will reduce the conflict between environmental water use and other beneficial uses, and allow more flexibility in water management decisions. The Program emphasizes the restoration of ecological processes in order to restore and maintain the diverse and vital habitats of the multiple plant and animal species in the Bay-Delta system. Representative actions include: restoring, protecting and managing diverse habitat types representative of the Bay-Delta system and its watershed; restoring critical instream flows; improving Delta outflow during key springtime periods; reconnecting Bay-Delta tributaries with their floodplains; developing prevention and control programs for invasive species; reducing or eliminating fish passage barriers; and performing research to provide information needed to define problems and to design and prioritize restoration actions.

**Fourth Quarter Accomplishments:** Six scientific panels have completed outlines and begun drafting reports on ecosystem restoration topics (fluvial geomorphology/riparian, tidal water, salmonids, Delta native fishes, environmental water account and open water) to assist in developing long-term strategies for ecosystem restoration implementation. Additionally, field assessments for the fluvial geomorphology report have been completed on several tributaries of the Sacramento River.

Under the Restoration Coordination Program, 33 proposals have been approved for funding. A letter was signed by the Assistant Secretary for Water and Science approving 21 of the 33 projects to be funded under the 1999 Bay-Delta Act appropriation. Planning and priority setting for fiscal year 2000 funds has been initiated. A Public Workshop was held on August 31st to discuss FY2000 priorities. On September 27 and 28, an Interim Science Panel convened and recommended funding 20 additional projects from the April 16, 1999 proposal solicitation. Those recommendations will be presented to the Ecosystem Roundtable, BDAC and CALFED Policy Group during the first quarter of fiscal year 2000.

**7. Project Title:** Integrated Phasing Strategy (a.k.a.: Multi-Species Conservation Strategy)

CALFED Recommended Level of Funding:	\$2,947,000
Funds Obligated Through September 30, 1999	\$2,508,141
Funds Expended Through September 30, 1999:	\$1,583,079

**Funding provided to:** USBR to CALFED Bay-Delta Program based on agreement signed May 17, 1995

**Project Description:** CALFED is developing a Multi-Species Conservation Strategy (MSCS) with a two-fold purpose, both biological and regulatory. First, the MSCS builds on the CALFED ERP and creates mechanisms designed to ensure that CALFED achieves specific goals for species and habitats. Second, the MSCS provides a framework for compliance with the Federal and State Endangered Species Acts and the California Natural Community Conservation Planning Act. The MSCS evaluates 243 plant and animal species that occur in the Bay-Delta system, and habitat types that are important to them. The MSCS sets goals that include the recovery of certain species, contribution to the recovery of others, and maintenance of still other species. Other MSCS goals focus on the restoration and maintenance of important habitats. The MSCS specifies two types of conservation measures: (1) those necessary to avoid, minimize, or compensate for impacts of Program actions, and (2) actions included in the CALFED Program that may be needed to ensure the achievement of species or habitat goals. The MSCS will also serve to assure that the CALFED Program as a whole, and individual CALFED Program actions will be implemented in compliance with the state and federal endangered species laws. Regulatory agencies will use biological information from the MSCS to prepare programmatic biological opinions. These biological opinions will serve as the springboard for streamlined regulatory compliance allowing entities implementing

CALFED actions to comply with endangered species laws and efficiently obtain any required take authorizations.

**Fourth Quarter Accomplishments:** The MSCS Team is working with staff from the ERPP and the South Delta Facilities teams to better integrate the ERPP with the MSCS and to prepare an ASIP for the South Delta Facilities program that will be ready for release soon after June 2000. The team is also responding to public comments on the Draft EIS/EIR and assisting with the preparation of the response to comments document and the final MSCS.

**8. Project Title:** Prospect Island Monitoring Project

CALFED Recommended Level of Funding:	\$915,000
Funds Obligated Through September 30, 1999	\$912,309
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR agreement signed with COE on September 28, 1999

**Project Description:** The Prospect Island Monitoring Project is necessary to measure the benefits to a variety of aquatic, avian and terrestrial species, including threatened and endangered species such as Delta smelt, Sacramento splittail and Swainson's hawk, which could result from the construction of the Prospect Island Habitat Restoration Project. The Project will restore approximately 1,300 acres of shallow water habitat in the northern Sacramento-San Joaquin Delta, creating shallow water/freshwater emergent marsh, mudflat, shaded riverine aquatic, riparian and upland habitat.

**Fourth Quarter Accomplishments:** Agreement negotiations between COE and DWR are in progress.



## SECTION K - MISCELLANEOUS EXPENSES/ADMINISTRATION

CALFED Recommended Level of Funding:	\$	9,468,990
Funds Obligated Through September 30, 1999:	\$	1,643,870
Funds Expended Through September 30, 1999:	\$	490,792

### 1. **Project Title:** Administrative Support Program

CALFED Recommended Level of Funding:	\$800,000
Funds Obligated Through September 30, 1999	\$596,870
Funds Expended Through September 30, 1999:	\$490,792

#### **Funding provided to:** USBR

**Project Description:** Funding is requested for support provided by USBR in coordinating funding activities with other federal CALFED agencies from the Bay-Delta Ecosystem Restoration Appropriation.

**Fourth Quarter Accomplishments:** Funding provided from July 1, 1999, through September 30, 1999, was utilized by budgeting, coordinating and contracting staff to facilitate Bay-Delta Act objectives through the CALFED Bay-Delta Program. In performing this function, the USBR staff worked with project/program applicants, sponsors and contractors to (1) prepare the third quarter report, (2) participate in and advise the Ecosystem Roundtable Issues and Amendment Subcommittees on the appropriate usage of federal appropriations and contract procedures, (3) participate on the Contract Administrator Teams, (4) provide contract administration services on 34 agreements and project management on 69 agreements, and (5) negotiate and award 12 agreements in support of several ecosystem restoration programs.

### 2. **Project Title:** Restoration Reserve

CALFED Recommended Level of Funding:	\$7,068,990
Funds Obligated Through September 30, 1999	\$0
Funds Expended Through September 30, 1999:	\$0

#### **Funding provided to:** USBR

**Project Description:** Up to 5 percent of the available funds have been set-aside in a Restoration Reserve Fund for emergency and single-time expenditures. Funds will be allocated to USBR and disbursed as directed by the Policy Group.

**Fourth Quarter Accomplishments:** No utilization of Restoration Reserve funds was requested during this quarter.

3. **Project Title:** Technical Review and Quality Control Program

CALFED Recommended Level of Funding:	\$1,600,000
Funds Obligated Through September 30, 1999	\$1,047,000
Funds Expended Through September 30, 1999:	\$0

**Funding provided to:** USBR through agreements signed with various federal agencies

**Project Description:** Each federal agency is required to monitor the schedule and budget of the activities it undertakes with this appropriation. Therefore, a quality control program was instituted to monitor work products to ensure that project deliverables were satisfactory. This program provides the resources needed to technically review project work products.

**Fourth Quarter Accomplishments:** Funds from this program have been allocated to support the management of three Bay-Delta Act programs. The programs supported and the amount allotted are as follows: (1) Floodplain Restoration/Habitat Restoration on Existing Conservation Lands Program - USFWS (\$862,000); (2) Watershed Restoration Planning Program - EPA (\$145,000); and (3) Bay Delta Education Program - USBR for CALFED program staff (\$40,000).

USFWS completed cooperative agreements for projects approved by CALFED as a result of the May 1998 Proposal Solicitation Package. Progress reports on these projects are reported in Section C above. Additional efforts included the coordination of these CALFED projects with other activities/projects being implemented through CVPIA or other funding sources.

EPA contracted with NFWF to provide project administration on 14 projects approved by CALFED for funding. See Section I for details on the projects awarded and under negotiation.

The Bay-Delta Education Program coordinator has facilitated work on the 1999/2000 education proposal solicitation, coordinated the funded 1998/1999 education programs and facilitated the overall operation of the CALFED Bay Delta Education Program. See Section J for details on the projects under negotiation and awarded.



## APPENDIX A. PROJECT SUMMARY FOR CALIFORNIA BAY-DELTA ECO SYSTEM RESTORATION APPROPRIATION

(Fourth Quarter of FY 1999)

Refer to Chapter 2 for Individual Project Progress Reports for Project Specifics

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
<b>Fish Screen Improvements</b>	<b>\$2,539,000</b>	<b>\$1,639,000</b>	<b>\$900,000</b>	<b>\$2,539,000</b>	<b>\$592,390</b>
Boeger Family Farm Fish Screen - USBR	15,000	15,000		15,000	13,811
Richter Brothers Fish Screen - NRCS	49,000	49,000		49,000	
Small Diversion Fish Screens Program - USBR	900,000		900,000	900,000	24,070
Woodbridge Fish Screen and Passage - USBR	1,575,000	1,575,000		1,575,000	554,509
<b>Fish Passage Improvements</b>	<b>\$43,042,099</b>	<b>\$2,420,970</b>	<b>\$11,295,690</b>	<b>\$13,716,660</b>	<b>\$1,759,008</b>
Fish Passage Program - USBR	8,943,607	2,095,970	3,000,385	5,096,355	956,010
1998 PSP Fish Passage Projects under Negotiation:	6,855,607	7,970	3,000,385	3,008,355	956,010
City of Sacramento Fish Screen Replacement Project, Phase II	654,500				
Hastings Tract Fish Screen, Phase II: Construction	271,250				
Steelhead and Chinook Salmon Fish Passage Barrier Remediation on the Guadalupe River	178,200				
ACID Fish Passage and Fish Screen Improvement, Phase II	860,000		860,000	860,000	774,763
American Basin Fish Screen and Habitat Improvement Project	200,000		200,000	200,000	0
Anadromous Fish Passage at Clough Dam on Mill Creek	1,280,000		1,280,000	1,280,000	0
Boeger Family Farm Fish Screen, Phase III: Construction	139,500		139,500	139,500	0
Fish Passage Improvement Project at Red Bluff Diversion Dam	340,600		340,600	340,600	148,715

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Modifications of Existing Fish Ladders at Granlee Dam and the Retrofit of Three Summer Dams with Low-Flow Passage Structures	188,255		188,255	188,255	32,532
1999 PSP Fish Passage Projects under Negotiation:					
Fish Passage Improvement Project at the Red Bluff Diversion Dam (RBDD), Phase II	1,030,000				
Improve the Upstream Ladder and Barrier Weir at Coleman National Fish Hatchery in Battle Creek	1,713,302				
ACID Fish Passage Project, Phase I - USBR	325,000	325,000		325,000	325,000
ACID Fish Passage Improvement Project, Phase III - USBR	5,253,000		5,100,219	5,100,219	2,433
Battle Creek Salmon and Steelhead Restoration Project - USBR	28,000,000		3,482,686	3,482,686	464,877
Fish Passage Project at Battle Creek - USBR	395,000	395,000	400	395,400	10,688
Lower Butte Creek Project - Phase II - USBR	775,000		750,000	750,000	
Stanislaus River Channel Restoration at Williams Site - USFWS (deobligated)	1,038,000	1,038,000	(1,038,000)	0	
Tuolumne River Setback Levees - USFWS	655,000	655,000		655,000	
Funding for Amendments	(254,508)		0	0	
<b>Habitat Restoration in Floodplains and Marshes</b>	<b>47,159,591</b>	<b>32,842,565</b>	<b>8,809,435</b>	<b>41,652,000</b>	<b>13,742,238</b>
Floodplain Restoration/Habitat Restoration on Existing Conservation Lands Program - USFWS	16,700,000	14,000,000	2,700,000	16,700,000	247,067
Benicia Waterfront Marsh Restoration	59,000				
Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay Ecological Zone	772,667				
Butte Creek Acquisition - USFWS	125,000				
Butte Creek Riparian Restoration Demonstration	76,348				
Cosumnes River Acquisition, Restoration Planning and Demonstration	750,000				
Deer Creek/Mill Creek Acquisitions and Enhancements	1,000,000				



CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Fern-Headreach Tidal Perennial Aquatic and Shaded Riverine Aquatic Habitat Conservation Project	425,000				
Floodplain Acquisition, Management and Monitoring on the Sacramento River	1,000,000				
Grayson River Ranch Perpetual Easement and Restoration	732,000				
Hill Slough West Habitat Demonstration Project	200,000				
Lower Clear Creek Floodway Restoration Project	3,559,596				
Lower Mill Creek Riparian Restoration	30,000				
Lower San Joaquin River Floodplain Protection and Restoration Project	1,100,000				
Merced River Salmon Habitat Enhancement, Phase III	2,433,759				
Petaluma Marsh Expansion Project - Marin County	352,135				
Rhode Island Floodplain Management and Habitat Restoration	25,000				
South Napa River Tidal Slough and Floodplain Restoration Project	1,455,000				
South Napa River Wetlands Acquisition and Restoration Program	431,000				
Stone Lakes National Wildlife Refuge Land Acquisitions	1,900,000				
Remaining Amount to be Committed by USFWS	273,495				
Habitat Restoration/Flood Control Bypasses Program - COE	1,200,000	1,200,000		1,200,000	12,226
Under Negotiation - Inundation of a Section of the Yolo Bypass to Restore Sacramento Splittail and to Support a Suite of Other Anadromous and Native Species in Dry Years	820,679				
Remaining Amount to be Allocated by COE	379,321				
1999 PSP Habitat Restoration in Floodplains and Marshes Projects Under Negotiation - USBR:					

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Development of an Implementation Plan for Lower Yuba River Anadromous Fish Habitat Restoration	176,130				
Riparian Corridor Acquisition and Restoration Assessment	2,240,250				
South Napa River Tidal Slough and Floodplain Restoration Project, Phase II	1,565,600				
Species and Community Profiles of the San Francisco Bay Area Wetlands Ecosystem Goals Project	45,320				
Understanding Tidal Marsh Restoration Processes and Patterns	1,073,513				
Bear Creek Floodplain Restoration Demonstration Project - USFWS	334,000	334,000		334,000	331,408
Cache Slough Shaded Riverine Aquatic Habitat Enhancement - USBR	85,000	85,000		85,000	11,685
Cosumnes River Floodplain Acquisition - USBR	3,500,000	3,500,000		3,500,000	3,500,000
McCormick-Williamson Tract Acquisition - USFWS	5,356,000		5,250,000	5,250,000	5,200,000
McCormick-Williamson Tract's Wildlife-Friendly Levee Improvement and Farming Program - USFWS	860,778		860,000	860,000	0
Napa River Wetlands Acquisition - USBR	1,000,000	1,000,000		1,000,000	920,000
Prospect Island Habitat Protection Project - COE	2,000,000	2,000,565	(-565)	2,000,000	1,688,723
Regional Wetlands Goals Project - EPA	76,000	76,000		76,000	0
San Joaquin Floodplain Acquisition and Riparian Restoration - USFWS	10,947,000	10,647,000		10,647,000	1,831,129
<b>River Channel Changes</b>	<b>15,233,060</b>	<b>9,624,010</b>	<b>5,253,200</b>	<b>14,877,210</b>	<b>8,808,932</b>
1999 Directed Action River Channel Changes Project Under Negotiation - USBR:					
Preliminary Design and Engineering of the Lower Western Stone Restoration Site, Merced River	130,000			0	
Liberty Island Acquisition - USFWS	8,926,000	8,577,000	170,000	8,747,000	8,563,784
Merced River Salmon Habitat Enhancement, Phase I: Robinson/Gallo Project, Ratzlaff Reach Site - USBR	1,633,000		1,586,350	1,586,350	2,348

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Sedimentation Movement, Availability and Monitoring in the Delta - USGS	1,047,010	1,047,010		1,047,010	242,800
Tuolumne River Mining Reach Restoration Project No. 2 - MJ Ruddy Segment - USFWS	3,332,050		3,332,050	3,332,050	0
Tuolumne River Special Run Pool (SRP) 10 Restoration - USFWS	165,000		164,800	164,800	0
<b>Improved Instream Flows</b>	<b>14,500,000</b>	<b>14,450,000</b>	<b>(1,211,642)</b>	<b>13,238,358</b>	<b>3,007,448</b>
Environmental Water Acquisition Program - USBR	14,500,000	14,450,000	(-1,211,642)	13,238,358	3,007,448
San Joaquin River Revegetation Pilot Project	2,500,000				
Water Acquisition on the Stanislaus River	3,000,000				
Environmental Water Acquisition Study					
<b>Water Quality and Temperature Improvement</b>	<b>11,208,615</b>	<b>4,737,000</b>	<b>4,106,649</b>	<b>8,843,649</b>	<b>2,655,164</b>
1999 PSP Water Quality and Temperature Projects Under Negotiation:					
Determination of the Causes of Dissolved Oxygen Depletion in the San Joaquin River - USBR	892,400				
Dissolved Organic Carbon (DOC) Release from Delta Wetlands, Part I - USGS	1,434,449				
Assessment of Ecological and Human Impacts of Mercury in the Bay-Delta Watershed - USBR	3,800,000		3,800,000	3,800,000	
Assessment of Organic Matter in the Habitat and Its Relationship to the Food Chain - USGS	1,440,649	1,400,000	40,649	1,440,649	1,083,493
Bacterial Treatment of Selenium in the Panoche Drainage - USBR	1,149,000	1,149,000		1,149,000	489,304
Evaluation of Selenium Sources, Levels and Consequences in the Delta - USGS	1,627,117	1,589,000		1,589,000	928,662
Integrate Pest Management in Suisun Bay Program - USBR	266,000		266,000	266,000	107,754
Sand and Salt Creek Watershed Project - USBR	599,000	599,000		599,000	45,951
<b>Introduced and Undesirable Species Control</b>	<b>1,402,233</b>	<b>1,250,000</b>	<b>0</b>	<b>1,250,000</b>	<b>32,866</b>

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Exotic Species Control Program - USFWS	1,250,000	1,250,000		1,250,000	32,866
Proposals Under Negotiation:	884,012				
Effects of Introduced Clams on the Food Supply of Bay-Delta Fishes	100,490				
Introduced Spartina Eradication Project	250,000				
Non-native Invasive Species Advisory Council	50,000				
Practical Guidebook to Prevention Control for Nonnative Invasive Plants In Shallow Water Habitats of the Bay-Delta Ecosystem	76,750				
Purple Loosestrife Prevention, Detection, and Control in the Sacramento and San Joaquin Delta and Associated Hydrologic Units	201,306				
Reducing the Risk of Importation and Distribution of Nonnative Invasive Species Through Outreach and Education	105,466				
Zebra Mussel Detection and Outreach Project	100,000				
Remaining amount to be committed by USFWS	365,988				
1999 PSP Introduced and Undesirable Species Control Projects Under Negotiations - USBR:					
An Evaluation of the Potential Impacts of the Chinese Mitten Crab on the Benthic Community in the Delta	152,233				
<b>Improved Fish Management and Hatchery Operations</b>	<b>673,496</b>	<b>625,000</b>	<b>0</b>	<b>625,000</b>	<b>127,584</b>
Evaluation of Tagging Data - USBR	634,500	625,000		625,000	127,584
1999 PSP Improved Fish Management and Hatchery Operations Project Under Negotiation - USFWS:					
Health Monitoring of Hatchery and Natural Fall-Run Chinook in the San Joaquin River	38,996				
<b>Watershed Management</b>	<b>4,848,316</b>	<b>2,253,000</b>	<b>1,990,408</b>	<b>4,243,408</b>	<b>445,235</b>
Watershed Restoration Program - EPA	2,031,663	1,588,000	443,663	2,031,663	34,638
Proposals under Negotiation:	223,000				

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Cold Water Fisheries and Water Quality Element	147,000				
Lower Putah Creek Watershed Stewardship Program	76,000				
Alhambra Creek Watershed CRMP Program	104,000				
American River Integrated Watershed Stewardship Program	162,000				
Battle Creek Watershed Stewardship	107,000				
Cottonwood Creek Watershed Group Formation	119,000				
Local Watershed Stewardship: Steelhead Trout Plan	38,000				
Merced River Corridor Restoration Plan	220,000				
Petaluma River Watershed Restoration Program	162,000				
Proposal to Develop Local Watershed Stewardship Plan for the Lower Mokelumne River	118,000				
South Yuba River Coordinated Watershed Management Plan	193,000				
Sulphur Creek Coordinated Resource Management Planning Group	20,000				
Union School Slough Watershed Improvement Program	385,663				
Watershed Restoration Strategy for the Yolo Bypass	180,000				
1999 PSP Watershed Management Projects Under Negotiation - USBR:					
Biological Ag Systems in Cotton - Reducing Synthetic Pesticides and Fertilizers in the Northern San Joaquin Valley	473,800				
Duncan/Long Canyon Paired-Watershed Project	86,108				
Butte Creek Watershed Restoration Implementation - USFWS	302,745	294,000	8,745	302,745	255,882
Floodplain Easements - Lower Tuolumne and San Joaquin Rivers - NRCS	1,545,000		1,500,000	1,500,000	0
Improvement/Sedimentation Stabilization on Deer, Mill and Antelope Creeks (Lassen National Forest) - U.S. Forest Service	371,000	371,000		371,000	147,013

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Inventory of Forest Road Systems at Cat Creek Watershed - U.S. Forest Service	38,000	0	38,000	38,000	7,702
<b>Monitoring, Permit Coordination and Other Special Support Programs</b>	<b>9,924,600</b>	<b>3,042,868</b>	<b>5,287,804</b>	<b>8,330,672</b>	<b>3,198,462</b>
Bay-Delta Education Program - USBR	788,600	0	385,993	385,993	181,741
Proposals Under Negotiation	368,600				
1999/2000 Bay-Delta Education Project	33,269				
Bay-Delta Traveling Film Festival and Exhibit	51,500				
Estuary Action Challenge Environmental Education Project	51,500				
River Studies Center Exhibits and Projects	70,467				
Sacramento River Discovery Center	39,552				
The Learning Watershed Project	56,907				
Water Challenge 2010 Exhibit, Phases III and IV	52,015				
Watershed Educational Training	13,390				
Bay-Delta Education Program Funds Available for Future Projects	34,007				
Bay-Delta Environmental Restoration Education Program	40,000		40,000	40,000	19,406
The Butte Creek Watershed Educational Workshops and Field Tours Series	33,000		33,000	33,000	2,599
Discover the Flyway	49,000		49,000	49,000	15,417
Environmental Agriculture Conferences and Field Tours	28,000		28,000	28,000	28,000
Sacramento River Headwaters to the Ocean, Public Information and Education	49,640		49,640	49,640	49,640
San Joaquin Valley's "Salmonids in the Classroom" Program Enhancement	3,000		3,000		0
Traveling Film Festival/Heron Booth/Video Archive	54,000		54,000	54,000	54,000
Tuolumne River Natural Resources Program	55,255		55,255	55,255	6,000
Water Challenge 2010	64,500		64,500	64,500	0

CATEGORY/PROPOSAL/AGENCY	TOTAL ALLOCATED	FY 1998 FUNDING OBLIGATED	FY 1999 FUNDING OBLIGATED	TOTAL OBLIGATED	TOTAL EXPENDED
Water Hyacinth Education Program	9,598		9,598	9,598	6,679
CALFED Special Support Programs - CALFED Program Staff	1,751,000		1,217,700	1,217,700	
Comprehensive Monitoring Assessments and Research Program - CALFED Program Staff	1,447,000	1,110,700	268,123	1,378,823	1,106,572
Coordinated Permitting - CALFED Program Staff	482,000	100,000	335,971	435,971	96,778
Development of a Watershed Management Program - CALFED Program Staff	394,000	111,573	301,750	413,323	220,482
Ecosystem Restoration and Planning - CALFED Program Staff	1,200,000		1,078,412	1,078,412	9,810
Integrated Phasing Strategy - CALFED Program Staff	2,947,000	1,720,595	787,546	2,508,141	1,583,079
Prospect Island Monitoring Project - COE	915,000		912,309	912,309	
<b>Miscellaneous Expenses/ Administration</b>	<b>9,468,990</b>	<b>172,360</b>	<b>1,471,510</b>	<b>1,643,870</b>	<b>490,792</b>
Administrative Support Program - USBR	800,000	172,360	424,510	596,870	490,792
Restoration Reserve - USBR	7,068,990			0	
Technical Review and Quality Control Program - USBR, USFWS, U.S. Forest Service, EPA	1,600,000		1,047,000	1,047,000	
<b>Grand Total</b>	<b>160,000,000</b>	<b>73,056,773</b>	<b>37,903,054</b>	<b>110,959,827</b>	<b>34,860,119</b>

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## APPENDIX B. CALFED OVERVIEW/FUNDING SOURCES

<insert CALFED table here>